

University of Southern Queensland

FACULTY OF HEALTH, ENGINEERING AND SCIENCES

**INVESTIGATION OF THE EFFECT OF POSITIVE
AND NEGATIVE CROSSFALLS ON ROAD
SAFETY AT ROUNDABOUTS**

A dissertation submitted by

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In fulfilment of the requirements of

Courses ENG4111 and ENG4112 Research Project

Towards the degree of

Bachelor of Engineering (Civil)

Submitted October 2014

Abstract

Roundabouts are a common form of road intersection and can be used to allow self-regulating flow of traffic. As part of a roundabout there are generally three critical geometric considerations, namely, approach geometry, the circulating carriageway and the departure geometry. In many instances this geometry is compromised and designed to slow traffic. Horizontal geometry is a significant aspect of the introduced compromise. Road Design Guides rely on the use of horizontal radii and crossfall to develop safe curves in road design. Consequently, the crossfall of a roundabout's circulating carriageway becomes an important design consideration. The crossfall must be designed to allow a smooth transition and adequate drainage performance of the circular carriageway. There are two common approaches to roundabout crossfall in Australia, positive and negative crossfalls. This dissertation investigates and analyses the road safety performance of existing roundabouts with these different crossfalls to evaluate the safety benefits that each arrangement may offer.

Data was obtained for crashes at roundabouts in Queensland. The data spanned from 2001 to 2012 and was analysed to determine the trends, proportions and common causes of roundabout accidents. The data was limited to Queensland to highlight the differences in performance between conventional, negative crossfall roundabouts and positive crossfall roundabouts, which are sufficiently scattered throughout Queensland.

Corresponding road design information such as horizontal radii, pavement crossfall and speed limits were obtained using aerial imagery, road design plans and crash reporting records. The data was used to contextualise the crashes and ultimately determine the role that the type of crossfall at the roundabout played in the crashes.

Crash data and review of literature indicated five major crash types at roundabouts, with four types linked to the crossfall at the roundabout. Crash

types included approach rear end, entry/circulating, single vehicle and overturned crashes.

Analysis of the data concluded that speed zoning played a significant role in all crash types, with crossfall a secondary affectation of speeds. It was found that positive crossfall sites were overrepresented in approach rear end crashes and overturned crashes. Negative crossfall sites were overrepresented in single vehicle and entry/circulating crashes. The results obtained were unevenly distributed against crossfall and statistically indicate that crossfall is a significant affectation of accidents at roundabouts.

More in-depth research is required into specific case study sites and crashes. Consideration could include traffic volumes and crash severity at the different roundabout crossfall sites. This will aim to validate and extend on the literature and crash data analysis in this dissertation.

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V. Stanton

U1005233

Acknowledgements

I would like to thank Dr Soma Somasundaraswaran for his supervisory role in the preparation of this dissertation. I would also like to thank the following people who have provided me with guidance, information and/or support in completing this dissertation:

- Patrick Kenny, New South Wales Roads and Maritime Services
- David Bowe, New South Wales Roads and Maritime Services
- Ricky Cox, Queensland Department of Main Roads
- David Gough, Queensland Department of Main Roads
- Dr Owen Arndt, Queensland Department of Main Roads
- Members of Queensland Department of Main Roads' Data Analysis Unit
- My Family, friends and colleagues

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List of Acronyms

ARRB	Australian Road Research Board
DOT	Department of Transportation
FHA	Federal Highway Administration
HeTSAC	Heavy Truck Safety Advisory Council
ITE	Institute for Transportation Engineers
km/h	kilometres per hour
LTSA	Land Transport Safety Authority
NTC	National Transport Commission
PBS	Performance Based Standards
TERNZ	Tertiary Education Research New Zealand

1. Introduction

Vehicular traffic has presented various engineering issues for many decades and authorities have introduced engineering solutions to mitigate risk and improve service to road users. A common form of this engineering solution is the use of a circular carriageway artificially designated at the intersection of roads, often two intersecting roads only. This form of intersection is known as a roundabout intersection. (New Hampshire Department of Transportation (DOT), 2009)

A roundabout is required to manage conflicting traffic streams by providing opportunity to slowly and safely traverse a circulating carriageway, and exit in their desired directions. The geometric elements of a roundabout provide guidance to drivers approaching, entering and travelling a roundabout (Federal Highway Administration (FHA), 2000).

This definition highlights the issues facing drivers at roundabouts and the many different opportunities for collision or loss of vehicle control at a roundabout. This dissertation reviews roundabout design guidelines and defines the different opportunities for crashes to occur. These opportunities are then considered with respect to crossfall on the circular carriageway of the roundabout. There are two means of designing roundabout pavement crossfalls in Australia. These are positive (sloping inward) and negative (sloping outward) crossfalls for the circular carriageway of roundabouts. The effects of crossfall towards roundabout performance will be analysed in this dissertation. Roundabouts that are located on longitudinal grades will provide variable crossfall and promote varying degrees of rotation for vehicles. This limits the significance of the data obtained at these sites. This dissertation will aim to only consider sites of similar environment with consistent crossfall.

As defined by the US Department of Transportation, a roundabout is required to guide traffic from approach to departure of the circular carriageway. This dissertation will examine the different elements of the roundabouts from

approach geometry, the circular carriageway and departure geometry with respect to the different types of pavement crossfall.

The approach geometry of a roundabout is required to calm and slow the approaching traffic from all approaches. This calming effect is often achieved with the use of horizontal curvature. The use of this horizontal curvature designed to slow traffic must consider the use of crossfall.

The circular carriageway is the core component of a roundabout design and it is the area of significant vehicle direction changes. The roundabout presents a large amount of opportunity for vehicles to enter and exit at different angles and paths. The use of different forms of crossfall on the circular carriageway simultaneously benefits and disadvantages different vehicle movements.

Departure geometry is designed to allow vehicles to clear the roundabout intersection in an efficient manner. The design of the departure legs of a roundabout must consider the ability of vehicles to transition from the circular carriageway to each respective departure leg of the intersection.

Based on these three elements of a roundabout, this dissertation will examine the impact of positive and negative crossfall. The findings will be supported with crash data from Queensland Transport's crash recording systems.

The successful selection of crossfall on a roundabout can improve the performance of the intersection. There are many benefits in providing a safer intersection for vehicles. These benefits include:

- Improved road safety
- Improved intersection performance and efficiency
- Reduced intersection delays
- Reduced asset management cost
- Public expenditure savings

The following briefly outlines the different crossfall types that are currently used within Queensland and will be considered further in this dissertation.

Positive crossfall roundabouts

Positive crossfall roundabouts are circular carriageways that are constructed with road pavement sloping downwards towards the central island. The central island becomes the lowest element of the roundabout. This form of roundabout is shown in Figure 1.



Figure 1 Typical Section of positive crossfall roundabout (Stanton, 2014)

Negative crossfall roundabouts

Negative crossfall roundabouts provide identical function to positive crossfall roundabouts albeit with road pavement sloping away from the central island. The central island becomes the highest element of the roundabout. This form of roundabout is shown in Figure 2.

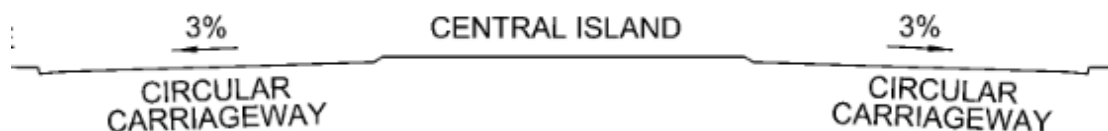


Figure 2 Typical Section of negative crossfall roundabout (Stanton, 2014)

Project Aim

Currently Australian road authorities, namely Queensland Department of Transport and New South Wales Roads and Maritime Services promote varying policies and guidelines on the design of roundabouts. A major point of difference is in regards to the use of positive and negative crossfall. New South Wales do not promote the use of positive crossfall roundabouts in their supplementary road design guides. Both road design authorities are members of Austroads, Australia's national committee for development of road design guidelines and policies and would be expected to offer similar advice in regards to such a common intersection treatment.

This dissertation will aim to deliver findings regarding crossfall selection at roundabouts. As per the project specification, this dissertation will:

- Perform a literature review of published material to identify and analyse roundabout design standards used for positive and negative crossfall roundabouts in Australia.
- Identify the types of crashes and contributing factors to crashes at roundabouts
- Collect and analyse crash data at roundabouts to determine the type of crash. Identify the corresponding roundabouts and collect design information to allow analysis of each crash
- Perform analytical calculations using design standards to determine safe vehicular thresholds at roundabouts
- Analytically compare incidences at roundabouts with positive and negative crossfalls to determine whether crossfall contributes to crashes and if so, how the different crossfalls affect different vehicles and crash types.
- Present findings to identify impacts of crossfall on road safety at roundabouts.

- Identify opportunities for further research into this topic

It is assumed that crash reports obtained from Queensland crash reporting systems (i.e. Web Crash, Road Crash 2, etc) are accurate since local police and investigative authorities have prepared them as primary evidence. For consistency, this dissertation will only examine and use information presented in the crash data.

2. Literature Review

This dissertation will examine the different background and design information available for roundabouts. The discussion of existing material is intended to review and examine the significance of existing knowledge to this dissertation and identify opportunities for research that will be undertaken in subsequent areas of this dissertation.

2.1 Roundabout Design Methods

Austroads Guide Road Design: Part 4B Roundabouts provides road design practitioners with guidance on roundabout design. Austroads recognises the need to provide safe and efficient intersections in order to reduce road fatalities, injuries and the associated socio-economic impacts.

According to this Austroads guide, roundabouts are proven to contribute to fewer casualties due to the reduced speed differential between vehicles on different legs of the intersection. This scenario is unique to roundabouts since it allows vehicles to interact and proceed subject to suitable gaps. Other intersection types require vehicles to behave as a result of a fixed trigger such as traffic signals (Austroads, 2009). The speed differential at traffic signals is potentially the posted speed limit. NSW Roads and Maritime Services' Centre for Road Safety propose that an introduction of a roundabout compared to traffic signals lowers the rate of cross traffic flow crashes by 70%.

Similarly, Austroads promotes the use of roundabouts to address the traffic flow issues of most intersections. It is recognized that larger volumes of traffic at intersections inevitably require traffic signals. This theory is supported by the explanation that two methods, increased roundabout size and/or increased lanes within the roundabout achieve increased capacity. Both of these alternatives diminish the potential safety benefits of roundabouts when compared to traffic signals (Austroads, 2009).

The design principles for roundabout design in Australia as mandated in *Austroads Guide to Road Design Part 4B: Roundabouts* are listed below. The guide refers to these criteria as preliminary considerations when designing a roundabout.

- Roundabout should be clearly visible from approach sight distance.
- Entering drivers must be able to see both circulating traffic and potentially conflicting traffic from other approaches early enough to safely enter the roundabout
- Approach entry curvature is used to limit speed on all approaches
- Exits should be designed to enable vehicles to depart efficiently
- Periphery of roundabout must be large enough to accommodate all intersecting legs without overlap
- Circulating roadway should be wide enough to accommodate swept paths of design vehicles for all vehicle movement on roundabout
- Sufficient entry, circulating, and exit lanes should be provided to ensure that the roundabout operates at an appropriate level of service.
- Number of legs should desirably be limited to four
- Legs should desirably intersect at 90 degrees

These considerations generally apply to the geometrical design of a roundabout and include driver behaviour issues. These principles do not provide guidance on the use of crossfall on a roundabout. One could ascertain that the horizontal geometry would subsequently control the application of crossfall and the guide consistently provides reference to optimizing the horizontal design, specifically sizing of the central island, horizontal approach geometry and horizontal departure geometry.

This focus on horizontal geometry provides an indirect suggestion of support for negative crossfall roundabouts. Figure 3 shows the use of a reverse curve approach with the recommended 2.5% - 3% super elevation on each horizontal curve. Using the suggested super elevation it would be necessary to provide negative crossfall on the roundabout. The main consideration from Austroads is the ability of the approach geometry to reduce entry speeds and increase the ability of a driver to maintain safe vehicle control.

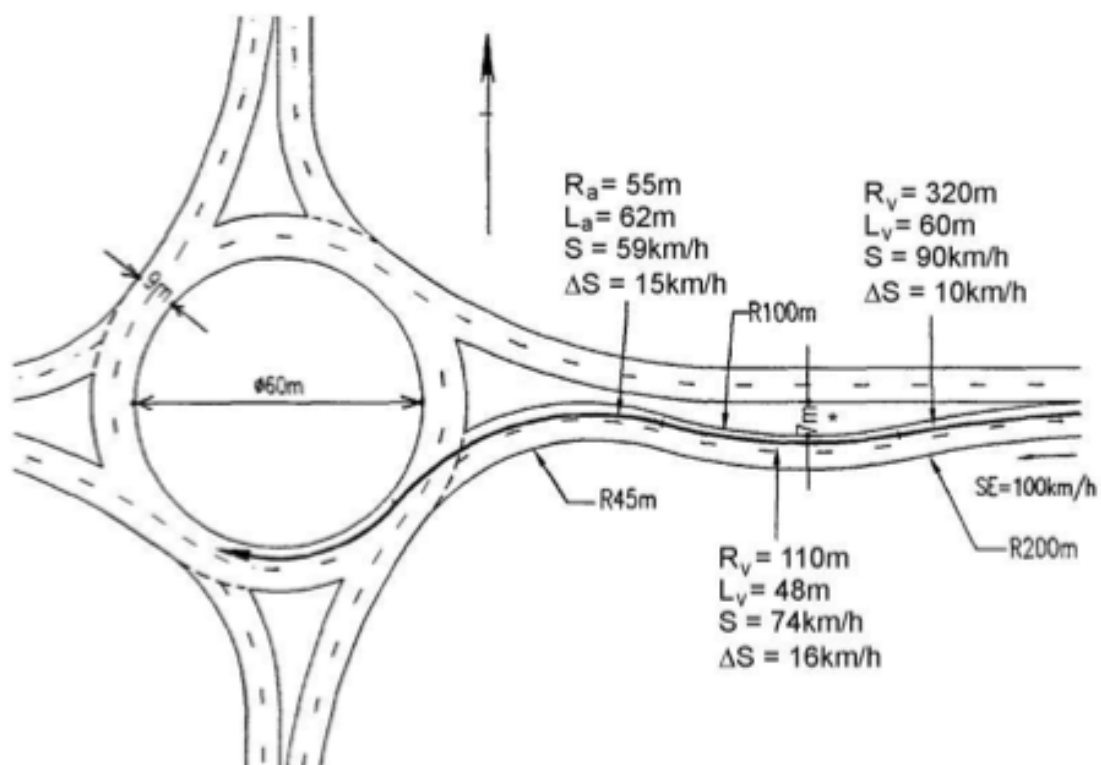


Figure 3 Austroads suggested roundabout design with reverse curve approach (Austroads, 2009)

In regards to the design of the circulating carriageway Austroads provides guidance on the area and width to ensure the carriageway can accommodate vehicles turning safely and within the road pavement area.

Austroads makes the distinction that road pavement should be limited between 2.5 - 3%. The guide discusses some advantages and disadvantages of positive and negative crossfall. These are listed in Table 1.

Table 1 Summary of differences for positive and negative crossfall roundabouts

Positive Crossfall	Negative Crossfall
Induces poor vehicle dynamics for left turning vehicles	Higher central island allowing improved driver recognition
Lowers single vehicle crashes for trucks	Drainage not required on central island

The guide provides advice on exit geometry. It is suggested that simple and efficient exit paths are used to reduce the potential for crashes at the exit of the circular carriageway.

In essence, Austroads advocates the use of speed reducing horizontal geometry on approach to the roundabout with adequate space provided on the circulating carriageway to allow turning vehicles to manoeuvre followed by simple exit geometry for efficient exit.

Arndt's research into crash rates at roundabouts similarly uncovered that geometric design of roundabout approaches is critical in reducing crash rates. The approach geometry was found to have the largest contribution to the reduction of crashes. Approach geometry has the most affectation towards crash rates at roundabouts (Arndt, 1998).

Arndt's research outlines the proportion of crashes that were recorded during a four-year period from 1986 to 1990. The types of crashes show a distinct overrepresentation towards entering roundabout crashes. Of the 492 crashes assessed across 100 roundabout sites, a total of 250 (50.8%) of crashes were attributed to entering collisions. These crashes were characterized as failing to give way and colliding with the circulating vehicle. The report justifies the lack of speed reduction in the approach geometry as the major contributor to these collisions and ultimately the majority of collisions at roundabouts.

$$A_e = C_1 \times Q_a^x \times \sum (Q_{ci}^y \times S_{ri}^z) + \zeta$$

(6)

where:

- A_e = number of entering/circulating vehicle accidents per year
- C_1, C_2 = constants
- x, y, z = constants
- Q_a = average annual daily traffic on the approach, i.e., one way traffic only (veh/d)
- Q_{ci} = the various average annual daily traffic flows on the circulating carriageway adjacent the approach from each direction according to Figure 10 (veh/d)
- S_{ri} = the various relative 85th percentile speeds between vehicles on the approach curve and vehicles on the circulating carriageway from each direction according to Figure 10 (veh/d)

Figure 4 Arndt's roundabout crash prediction equation for entry/circulating crashes (Arndt, 1998)

Arndt's equation, shown in Figure 4, was developed following research into roundabout crash rates. Mathematically, "the crash rate is directly proportional to the traffic flow on the approach". In order to limit the crash rate for entering vehicles "the relative speed between entering and circulating vehicles must be limited".

Queensland Transport's *Road Planning and Design Manual* lends support for designer consideration of the approach geometry. "Single vehicle crash rates reduce as the decrease in speed between successive horizontal elements reduces". This statement supports Arndt's original findings and includes requirement that reduction in approach speed across successive geometric elements should be limited. This prevents large reductions in speed occurring in single geometric elements. Higher speed zone roundabouts would be required to utilize a combination of geometric elements to produce a safe approach path for vehicles. The manual labels this aspect of a design as one

that “significantly affects crash rates at roundabouts” (Queensland Transport, 2006).

The United Kingdom’s *Design Manual for Roads and Bridges* advocates for speed control to be provided on the approach curve of a roundabout, again reaffirming industry belief in controlling entry speeds of vehicles. Arndt followed up his 1998 research with development of new criteria for the control of speed through roundabouts. The research compared current industry practices across the world to assess the merits of each. An overview of each method of speed control and subsequent safety improvements are highlighted in Table 2.

Table 2 Overview of existing roundabout design methods (Arndt, 2008)

	Australian Method	UK Method	USA Method	Queensland Method
Design methods	Deflection	Maximum entry path radius	Maximum decrease in speed between successive elements	Maximum entry speed Maximum decrease in speed between successive elements Maximum relative speeds between entering and exiting vehicle paths Maximum difference in potential side friction

Table 2 highlights the research undertaken by Arndt to produce a model that considered vehicle dynamics across the range of movements at roundabouts. The remaining methods cater for the entry path and addressing subsequent crashes occurring on such path. From the above approaches to design, the crossfall of the circulating carriageway is not directly considered.

2.2 Crashes at Roundabouts

Arndt, Maycock and Hall and others have carried out extensive empirical research throughout different countries and periods to determine the proportions and types of crashes occurring at roundabouts. Arndt's research, in similar fashion to Maycock and Hall, categorized roundabout crashes into the following types (Arndt, 1998):

1. Approaching Rear-End – two vehicles collide in a front to rear manner upon entry to the circulating carriageway.
2. Entering/Circulating – an entering vehicle fails to give way and collides with a vehicle on the circulating carriageway.
3. Single Vehicle – a vehicle loses control and becomes errant, colliding with a roadside fixture, or overturns (rollovers).
4. Exiting/Circulating – an exiting vehicle, driving from the inner circulating lane attempts to cross to a departure leg and collides with a vehicle on the outer circulating lane that is continuing to circulate around the roundabout.
5. Sideswipe – a collision between two vehicles travelling on a different path but in the same direction.

Other minor crash types have been researched by the US Department of Transportation. They primarily involve other road users such as cyclists and pedestrians. The level of crashes between vehicles and pedestrians or cyclists is overrepresented due to the lack of measures to control the interaction between the two parties (FHA, 2000).

Approaching rear end crashes

Approaching rear end crashes are categorized as frequently occurring at many intersections forms, including roundabouts. The primary location of rear end collisions is at traffic control sites such as traffic signals, stop lines and give way lines that designate priorities amongst vehicles. This results in collisions if following traffic is not aware of the impending stop (NHTSA, 2014). The NHTSA reports that rear end collisions regardless of their location in a road setting tend to be caused by driver behaviour issues such as following too closely, negligent driving or failure to remain alert to delineation and signposting. These issues lead to approximately 2.5 million collisions per year in the United States. The design, itself, of the road or intersection control is very rarely the cause of increased rear end collisions.

Austroroads offers an alternative suggestion that approach rear end collisions, in some instances result from lack of recognition of an approaching roundabout. It is suggested that positive crossfall on a circulating carriageway may reduce driver recognition of the island thereby suggesting approach rear end crashes could increase at these sites.

Entering/circulating crashes

Entering/circulating crashes are the most common type of crash occurrence at roundabouts. Arndt's research found that approximately 50% of crashes studied were approach crashes. The FHWA similarly found that approach crashes were the most frequent type of crash occurring at roundabouts. Despite the frequency of approach crashes, most are not fatal due to the smaller difference in relative speeds (Arndt, 1998). This concept is reaffirmed by Austroroads.

To limit the majority of crashes Arndt confirms, "approach geometry design that successively reduces vehicle speeds would significantly reduce crash rates at roundabouts". A specific value of 35km/h is affirmed as the threshold

for safe entry speed. Beyond this value it is found that speed differential increase and consequently the rate of crashes increases. No correlation between the application of crossfall on the circulating carriageway and approach crash rates is contemplated. From Part 3 of the *Austroads Guide to Road Design*, it is suggested that pavement rotations are to be limited and Part 4 recommends that 2.5 - 3% super elevation be applied to approach geometry. Effectively, both authors support the correct application of crossfall on curves although do not recognise crossfall on the circulating carriageway as a contributor to approach crashes.

More specifically, Arndt provides design recommendation for speed control at roundabouts. The proposed method involves:

1. Absolute and desirable entry path radii for various approach speeds and number of lanes based on vehicle path models
2. Absolute and desirable minimum central island radii for various approach speeds and number of lanes.

The intention of the proposed method is to provide more robust design criteria for roundabouts. Arndt's parameters rely on vehicle entry speed and the use of geometric design principles to ascertain probable maximum speeds and consequently limit entry speed to consequently reduce entry/circulating crashes, among others.

Similarly, Maycock and Hall's research in 1984 proposed specific findings for entry geometry, aimed at reducing the entry speed of vehicles. Findings included control of entry path radii, not just lane radii, to ensure probable maximum speeds could be limited in all instances (Maycock and Hall, 1984). Neither of these methods addresses the design of the circulating carriageway or the interaction between horizontal geometric elements and pavement crossfall.

Single vehicle crashes

Robinson's 1992 research found that 23% of all crashes at roundabouts in NSW were single vehicle crashes. Arndt found that 18.3% of the crashes studied were single vehicle with a further breakdown that indicated 57% of the single vehicle crashes occurred on the circulating carriageway. The remaining proportion of single vehicle crashes were evenly distributed between approach, entry and departure locations to the roundabout. Based on Arndt's figures, 10% of crashes at roundabouts are single vehicle occurring on the circulating carriageway.

The loss of control in single vehicle crashes was found to be a result of one or more of the following (NHTSA, 1977):

- Excessive speed
- Driver overreaction
- Driver negligence
- Driver judgment error/fatigue

This dissertation does not focus on the driver psychology and behaviour aspects when assessing single vehicle crashes. In a road setting context, the two significant causes of single vehicle crashes were confirmed to be excess speed (Arndt, 1998) and driver overreaction (NHTSA, 1977).

The issue of excessive entry speed is reaffirmed in the various design criteria developed by various authors including Arndt, Maycock and Hall, the FHA and more recently Austroads (refer to Table 2). Driver overreaction is caused by unexpected or undesirable situations in which the reaction applied is excessive leading to a loss of vehicle control (NHTSA, 1977). This is a broad crash causation factor although when applied to roundabout crashes it

accounts for the majority of single vehicle crashes. The remaining proportion of single vehicle crashes is comprised of overturned crashes (NHTSA, 1977).

The NHTSA presented countermeasures to reduce vehicle speeds including speed limit reductions and other minor traffic measures. Speeding is confirmed as major causation of crashes and validates the need for an approach speed design criteria at roundabouts.

Furthermore, their research indicated that 184 of 1370 studied single vehicle crashes were attributed to driver overreaction. Driver overreaction crashes, from their assessment were preceded by “unexpected situations of hazards” to which “natural reaction was to brake and/or swerve excessively”. The NHTSA’s research was not limited to intersections and therefore the requirement to brake excessively in the roundabout context would be closely linked to excess approach speed. The need to brake excessively is reduced at lower speeds (NHTSA, 1977).

The proportion of crashes caused by vehicle factors was not of significance (NHTSA, 1977). Rollovers were generally caused by a combination of environmental and driver factors. However, the NHTSA proceed to question the validity of design criteria to address different vehicle’s stability and performance. “Design criteria could be related to the ratio of track width to height of the vehicle centre of gravity, roll angle and other suspension system characteristics.” Their findings did not include heavy vehicles although they forecast the rate of single vehicle rollover crashes to increase with heavy vehicles considered.

Their research found that zero of 106 overturned crashes (light vehicles only) occurred on wet pavement with their findings concluding that “there is a strong relationship between pavement friction and capabilities and vehicle configuration”.

Single vehicle crashes (Heavy Vehicles)

Research by Kharazi and Thomson indicated that heavy vehicles are involved in an overrepresented amount of single vehicle crashes. Their research focused on roll and yaw instability. This supplements the 1977 findings of the NHTSA; that vehicles with high centre of gravity are likely to become involved in overturned crashes due to inherent vehicle dynamics. Further research supported this by finding that heavy vehicles, particularly articulated, were more likely to induce rollover or instability when turning at roundabouts, particularly the circulating carriageway which would include the ideal conditions for instability and possibly rollover. (Inderscience, 2008).

The NTC has introduced PBS for heavy vehicles. These are a set of vehicle performance standards to mandate on road performance of heavy vehicles. Greater access to the road network is available for vehicles that perform to or exceed specified standards, regardless of the prescriptive legislation limits (NTC, 2008).

This criteria is currently, the only recognized criteria for holistic heavy vehicle performance within Australia. Although Australian Design Rules indicate maximum and minimum performance values, they are limited to components of vehicles (ARRB, 1999). The PBS system models the actual performance and dynamics of a heavy vehicle as a combination. This provides an actual indication of on road performance and allows the NTC to determine safe levels of access (ARRB, 1999).

Of the twenty assessment criteria used for assessing heavy vehicles, roundabouts and stability are included. The applicable criteria to heavy vehicle performance on the circulating carriageway include:

- Load transfer ratio
- Static roll threshold (SRT)
- Roundabouts

The above factors include two performance and an infrastructure criteria. Of importance is the NTC's criteria for infrastructure criteria since roundabouts are intersections "that have a direct impact on safety" for negotiating heavy vehicles.

The static rollover threshold measures roll stability. This value indicates the maximum lateral acceleration sustainable by a vehicle without rolling over during a turn (Brusza, 2009). It has "been strongly linked to rollover crashes". The minimum accepted rollover threshold is 0.35g (NTC, 2008). HeTSAC conducted research in 2006 to determine the proportion of heavy vehicles operating in Tasmania that did not meet this PBS requirement. A sample of 96 heavy vehicles was selected with approximately 13% found to be non-compliant for the static rollover threshold. Their findings supported other research that found "heavy vehicles with poor rollover stability have a higher rollover crash rate than other vehicles". PBS standards are not mandated for heavy vehicle roadworthiness or Australian compliance (HeTSAC, 2006). As outlined in the NHTSA's 1977 report, the NTC examined the feasibility of introducing such a standard; it determined that productivity losses, costs and feasibility would not be viable. Recommendations included a targeted approach to improve poorly performing divisions within the transport sector. Importantly, the report identifies the potential risks of ongoing non-compliance and lack of performance regulation.

The Land Transport Safety Authority of New Zealand (LTSA) found that the 15% of vehicles with an SRT of less than 0.35g were involved in 40% of rollover crashes. This supports the 2006 HeTSAC findings. LTSA found that speed and other vehicle criteria such as centre of gravity, suspension stiffness, tyre friction and track width were important factors that influence heavy vehicle rollover. Pavement crossfall was not identified as a factor that contributes to load transfer and reducing vehicle stability.

Milliken and de Pont conducted research in 2004 to assess the link of road geometry to heavy vehicle crashes. Their findings over a five-year period from crash records in New Zealand found that of the crashes where “lost control” was reported, road geometry most likely contributed. 3239 crashes were reported as “lost control” with 53% of these crashes being single vehicle crashes during turning manoeuvres. The report does not distinguish what proportion occurred at roundabouts although highlights the increased risk of rollover and lost control when turning a heavy vehicle (Milliken & de Pont, 2004). The report presents a mathematical expression to quantify the influence of road crossfall on the SRT.

Equation 1 Relationship between rollover and pavement crossfall (Milliken & de Pont, 2004).

$$a_r = (SRT_{veh} \pm \theta)$$

where

a_r = lateral vehicle acceleration producing rollover

SRT_{veh} = Static vehicle rollover threshold(g)

θ = road crossfall(%)

A favourable crossfall (positive) increases the lateral acceleration threshold required to produce rollover, therefore reducing the probability of crash rates when cornering (Milliken & de Pont, 2004).

The load transfer ratio indicates the amount of load transfer during manoeuvres (Milliken & de Pont, 2004). When negotiating roundabouts, heavy vehicles experience load transfer. A safe maximum threshold of 0.6 is mandated by the NTC. The load transfer ratio was found to vary depending on the type of coupling (A or B), road geometry and other factors. The ability of road design to account for load transfer is difficult since it is a performance

factor that is not “clearly beneficial or clearly detrimental” (Milliken & de Pont, 2004).

Roundabouts were considered with respect to geometric layout and turning envelope to satisfy PBS requirements. The NTC “recognize the importance of road safety” at roundabouts. As part of gaining approval, turning and spatial requirements are checked. No technical calculations are performed, especially with respect to the crossfall of a roundabout.

In summary, a collection of research acknowledges the impact of turning manoeuvres at roundabouts; Equation 1 defines the link between crossfall and lateral acceleration although design standards do not cater for heavy vehicle limitations. As a result, an overrepresentation of overturned heavy vehicles is expected.

Exiting/Circulating Crashes

Exiting crashes are not as frequent as entering crashes (Arndt, 1998). Of the 492 crashes assessed by Arndt, only 6.5% were found to occur when vehicles were exiting. The collisions were caused by inner circulating vehicles failing to give way to outer circulating vehicles. This causation does not appear related to road geometry and crossfall. This dissertation will not address exiting/circulating crashes any further.

Sideswipe Crashes

Similar to exiting crashes, sideswipe crashes occur on the circulating carriageway although is caused by vehicles taking different paths (Arndt, 1998). This causation does not appear related to road geometry or crossfall. This dissertation will not address sideswipe crashes any further.

2.3 Summary of Literature Review & Basis of Research

Roundabouts are considered the safest form of intersection when considering crash rates. This dissertation will aim to present further evidence for improved understanding of crossfall and the effect it has on crash rates and types at roundabouts.

The *Austroads: Guide to Road Design*, Australia's adopted road design guide, provides horizontal design criteria and considerations for roundabouts. Design entry speeds are the focus of the guidelines. It supports Arndt's and Queensland Transport's findings that indicate reductions in entry speed provide the largest reductions in crash rates at roundabouts.

However, both parties focus on vehicle entry paths as a horizontal alignment consideration, little consideration is explicitly given to the application of crossfall at roundabouts.

When considering crashes, Arndt and others categorise five major types occurring at roundabouts. These include approaching rear end, entering/circulating, single vehicle, exiting/circulating and sideswipe crashes. Of the five types of crashes, approaching rear end, entering/circulating and single vehicle crashes were most likely influenced by the application of crossfall at the roundabout.

Austroads suggests that the use of positive crossfall on roundabouts obstructs vision of the roundabout island and may deceive approaching traffic. This could be reflected in a higher rate of approaching rear end crash rates.

Arndt proved that entry/circulating crashes were the most common type at roundabouts and indicated that entry speed was a major causation factor. This led to his proposed design criteria and method of considering probable vehicle entry paths and aiming to limit the maximum vehicle entry speed. This research supported Maycock and Hall's 1984 research that provided similar

criteria. Both research findings did not refer to the application of crossfall at roundabouts.

Arndt and Robinson proved that single vehicle crashes accounted for approximately one fifth all roundabout crashes. Arndt clarified this by proving that approximately half of the single vehicle crashes occurred on the circulating carriageway.

Similar research into crash causation by the NHTSA found that driver overreaction and vehicle speed were leading causes of single vehicle crashes. The NHTSA proposed speed limit reductions and similarly targeted measures to reduce entry speeds. Their findings provided support to Austroads, Maycock and Hall and Arndt.

Alternatively, the NHTSA outlined shortcomings in design criteria including the lack of consideration for vehicle configurations and their physical performance capabilities on roads. Heavy vehicles were identified as potential vehicle type susceptible to increased single vehicle crashes particularly rollovers, due to their size and mass.

Subsequently, PBS requirements for heavy vehicles are the first accepted criteria to assess heavy vehicles for road access within Australia. Roll stability is a performance target governed by PBS. HeTSAC confirmed that heavy vehicles with lower roll stability thresholds are more susceptible to rollover crashes. Additionally, TERNZ conducted research using crash data and PBS requirements. They found an overrepresentation of single vehicle crashes involving heavy vehicles where the PBS criteria was not met. This confirmed the NHTSA's commentary that vehicle configuration criteria would be required to address crashes.

A second PBS criteria used for rollover likelihood is the load transfer ratio. The reviewed literature indicated reliance on speeds, driver paths and load restraints among others. It is practical to suggest this vehicle performance

factor is outside the capacity of road design authorities to anticipate and mitigate during design.

Roundabouts are considered during PBS assessments although assessment is limited to horizontal geometry and turning envelopes. No consideration is applied to crossfall by the NTC. Entry speeds, another major causation, are not a focus of the NTC assessment due to notion that heavy vehicle drivers are more professional and higher skilled.

The final crash categories identified include exit/circulating and sideswipe crashes. According to Arndt and Robinson's separate research, both of these crashes are a minority type at roundabouts and generally attributed to driver error or poor delineation.

Essentially, there is no or minimal consideration of the application of crossfall expect indirect Austroads policy from an alternate section of the *Guide to Road Design*. Entry speed is identified as a critical contributor to roundabouts crash rates. Heavy vehicles are identified as most susceptible to crossfall changes particularly during turning manoeuvres.

Based on researched literature, investigation is required to determine the effect of crossfall on crash rates and types at roundabouts. This statement will form the basis for the following sections of this dissertation.

3. Methodology

3.1 Review of Research Methods

There have been number of reports prepared on road safety and the relationship of road design, vehicles and crash rates. The research into crossfall at roundabouts effecting crash rates depends on valid and reliable methods to produce accurate results. This section of the report outlines the procedures and justifications for these procedures. The intention of this section is to provide a valid and accurate platform for results to be presented in the subsequent section of this dissertation.

The basis for the majority of literature reviewed in section 2 of this dissertation; including that of Arndt, the NHTSA, HeTSAC and others has been the use of historical crash data, with some integration of mathematical analysis. This is the most preferred method for highlighting correlation between road safety and road features. Statistically, a sample is considered to be sufficient in size to indicate trends once reaching at least 30 samples (Stattrek, 2014). The use of larger sample sizes reinforces findings if appropriate controls are properly applied.

The use of controls is required to ensure variables that contribute towards results are noted or eliminated from analysis if required. In Arndt's 1998 research, 492 crashes were considered. Little control was placed on these crashes except for the location being roundabouts. The reasoning was the broad nature of the research aim. Arndt endeavoured to prove a correlation between crash rates and the geometry of roundabouts. In order to create a mathematical relationship the sites were examined and headline statistics produced. Subsequently, the sites were assessed further and a mathematical relationship developed once geometric and traffic information from the sites was known.

The use of 492 roundabout crashes proved sufficient to capture and acknowledge the range of different roundabout crashes. The findings presented proved to be valid. Arndt's research provided support to preceding research, particularly Maycock and Hall's research in 1984. His findings also presented a basis for further research by Queensland Transport and Austroads acknowledgement in their *Guide to Road Design*.

An ITE report prepared in 2008 for roundabout safety principles highlighted different safety principles, many corresponding with Arndt's and others' findings. The report addressed and promoted principles of design, supported by crash data and crash rates. In addition, the report provided commentary on key elements of roundabout design, particularly crossfall. The commentary was not supported by crash data or mathematical analysis although provided technical commentary on the issue. Further research to validate the discussion in the ITE report is required.

3.2 Focus of Research

As outlined in the literature review, the effect of crossfall at roundabouts is currently considered minor with little research attributing crossfall to crash rates. This lack of research has formed the basis for this dissertation.

There are three key areas that the analysis of crashes in this dissertation will focus, these include:

1. Effect of crossfall on approaching rear end crashes

Austroads presents information that positive crossfall roundabouts limit vision to the central island, deceiving following traffic. This should be represented in the crash rates at sites with positive crossfall.

2. Effect of crossfall on entering and single vehicle crashes

The majority of research into crashes at roundabouts identified high entry speeds. This is a logical causation factor given a roundabout operating well relies on reduced speed differential of conflicting streams (Austroads, 2009). Research focused on probable maximum vehicle speeds following arbitrary entry paths. In order to comply with recommended design guidelines and provide positive crossfall multiple pavement rotations are required over a short length. As per road design guidelines, the proportion of entering crashes would be increased if rates of pavement rotation at roundabouts were not controlled. If not correctly implemented at sites, an increased entering and single vehicle crash rate could be expected. Lower speed zones present inherent difficulties in rotating pavement suitably for positive crossfall and may be overrepresented in these accident types.

3. Effect of crossfall on heavy vehicles at roundabouts

The NTC with their PBS requirements acknowledge roll stability and roundabouts in their criteria. Research indicates that the crossfall of the roundabout affects the rollover likelihood of heavy vehicles. Negative crossfall

is mathematically proven to increase the likelihood of rollover. This should be represented in heavy vehicle rollover crash rates at negative crossfall roundabouts

3.3 Adopted Research Method

The basis of this dissertation is to provide technical insight into the areas of need as identified in Section 2 of this dissertation. Historical crash data and roundabout design information will be used at sites with crash history to identify links between crossfall type, crash types and rates.

Crash rates provide historical proof of road safety performance. The use of crash reports and information will be used to develop findings. Crashes are a key indicator of road safety. Crash data provides a portrayal of real world, unsolicited events. The focus of the analysis in subsequent sections of this dissertation is to identify the effect of crossfall on such crashes.

In order to develop a relationship between crashes and crossfall additional information is required to provide relevance to the data. Each crash site would be examined to observe geometric layout and record the type of crossfall. This information is significant in developing valid relationships between crossfall types and crash data.

Both sets of information are required for valid analysis to be conducted and discussed. The use of historical crash data is a valid method of developing road safety findings. Firstly, crash data indicates actual, unsolicited events caused by factors involving a vehicle, road and driver. The use of crash data individually, has limited benefit, except to provide headline statistics. All material reviewed in Section 2 of this dissertation accounts for trends between crash data and other features such as vehicles or road infrastructure. Likewise, this dissertation will present data in conjunction with the road setting and crossfall. This information provides weighting to the role of crossfall in roundabout crashes.

Developing models for simulation would be an ideal method of assessment. However, modelling by simulation would require application of mathematical and theoretical principles. The use of modelling would only provide crash estimates consistent with the input data. This would aim to extend the view of

the model developer. Acceptance of the model requires validation by the way of real world performance (Smith, 2010). Real world testing is not feasible nor an efficient means of producing a wide spread spectrum of results for this dissertation.

This dissertation will rely on historical crash data to develop proven relationships between crossfall and crash data. A potential result of this research could include refinement of roundabout crash models to consider crossfall.

Crash Data Collection

Crash data forms the basis for the research and discussion in this dissertation. The data was obtained from Queensland Transport's Department of Main Roads crash reporting systems. The use of crash data relies on accurate data entry and reporting to produce valid results.

Queensland's crash reporting system relies on emergency service personnel reports from crashes. The crash reports are compiled as primary evidence reports with critical information about the crash included. The information provided includes vehicle details, environment, location, weather and driver profiling. This information allows data to be analysed accurately.

There are some assumptions and expectations in adopting the crash reports. Firstly, local authorities familiar with the scene of a crash should complete crash reports unabated otherwise common tendencies of involved drivers to alter facts prevail and potentially distort causation factors of the crashes. A secondary expectation is the requirement for data to be entered accurately, as primary evidence. This is expected of local authorities and improves validity of the database. Analysis of crash reporting errors is beyond the scope of this research. One could be expected to accept the risk associated with data entry error as minor and not significant to the overall research outcomes. This risk is further mitigated with the use of a large and longer-term sample size for

analysis. The longer-term risks associated with site information are discussed in the following section.

A limitation to the use of crash databases is the fact that crashes often occur without authorities attending. The amount of unattended crashes has potential to provide a skew of results towards larger, reported crashes. Repeated minor crashes may indicate stronger trends although may not be captured in the crash reporting system. This is however beyond the scope of this dissertation and information not reported in the crash databases would not be considered. Non-captured data would not be available to any research parties and is therefore considered minor and not significant to this research.

Details such as driver speed allegations are not considered in this dissertation. Although local authorities attend and aim to report accurately, reliance on driver and witness testament is required in some instances. Given the liability associated with crashes, falsification of preceding events is highly plausible (Ogden, 1996). This is a limitation in producing speed zone findings since the posted speed limit may not have been adhered to.

The ability to provide reliable and actual speed data is very limited. This limitation is applicable to all research reviewed in Section 2 of this dissertation which acknowledged speed as a causation although all authors did not quantify the level of speeding.

Crash data will be used to capture all reported crashes at roundabouts in Queensland between 2001 and 2012. The records will be used to identify the following:

- Crash type
- Crash vehicle type (for at fault vehicle in multiple vehicle crashes)
- Speed zone of roundabout (relevant approach speed limit where they vary)
- Road surface condition

- Intended movement at the roundabout (for at fault vehicle)

The latter four criteria were commonly alluded to as affecting factors in reviewed literature. They will be used to analyse the type of crashes and influencing factors. Additional information such as the direction, latitude and longitude coordinates; weather conditions and degree of damage/injury from each crash will be observed as means of validating the consistency of each crash report.

Sites or information that is not consistent with the crash recording will be removed from analysis. This process aims to improve the quality and confidence in the results.

Roundabout Design Data Collection

Roundabout design data forms an important component of this research. The data is required to provide context and value to the crash data and rates. The data is required to indicate site geometry and crossfall type.

Accuracy of the roundabout design information is critical to facilitating discussion and identifying relationships between crashes and crossfall types. Inaccuracies or inconsistent reporting would limit the validity of the research. It is paramount that design information observed from the sites is clear and accurate.

The design information will be collected using a variety of media. The use of different media presents opportunity to utilise the most appropriate resources to deliver quality observations. The use of a single medium, preferably roundabout design plans, would be difficult to obtain for each site. It would also require extensive time allocation to pursue and assess design plans for each crash site.

Where available, design plans used to construct the roundabout sites remain the most preferred and accurate means of identifying the required design parameters such as crossfall and radii. The design plans would include all of the information necessary to allow mathematical and theoretical analysis to be conducted for vehicle and crash types. Where available, the use of design plans is considered a safe and accurate approach for this research task.

The limitations involved with the use of the design plans are minor, that is, the design plans may be slightly inaccurate due to variations adopted during the construction or maintenance works. Without major reconstruction it is not feasible to significantly alter the crossfall of the roundabout. The risks associated with changes to the crossfall are minor, given the scope and likelihood of occurrence is minor.

Road browsing software will be used where design plans are unavailable. It will enable efficient and accurate observations of crossfall types for all sites. Google's Street Viewer mapping is freely available and provides coordinated aerial and on road imagery. It also allows efficient observation of a roundabout from different approaches. This can be cross-referenced against the crash data records to identify the most applicable area of the roundabout to the crash therefore improving the level of reporting.

Similarly, coordinated aerial imagery will be utilised to determine additional geometrical information such as horizontal radii on approach to roundabouts. The use of coordinated aerial imagery will be considered sufficiently accurate to survey and measure radii and horizontal elements. This approach is considered accurate for the purposes of determining horizontal geometry information.

The use of a long-term period of crash data presents opportunities for information accuracy issues to arise, particular with road construction works. Records of crashes have been obtained from 2001, totalling a period of 11 years. The extended time period poses a risk to the validity of research outcomes given the likelihood of on road changes.

The use of larger sample sizes (over 10,000 reported crashes) assists in offsetting the identified risks and limitations. Secondly, a considered approach has been adopted to remove any potential inconsistent data, including sites of road construction works. For transparency purposes, the amount of data removed from analysis for these reasons has been outlined in Section 4 of this dissertation. Date stamped aerial imagery from Google also provides assurances for the validity of data.

On this basis, the proposed methods are deemed consistent with adopted practices and therefore sufficient to facilitate research into the effects of crossfall on road safety at roundabouts.

4. Results

4.1 Approach Rear End Crashes

Approach rear end crashes are the most frequently occurring crash type at intersections (Yan, 2005). The requirement for drivers to respond to the evolving conditions coupled with distraction or inattention can lead to rear end crashes. In the context of this research an analysis of roundabout crashes in Queensland from January 2001 to December 2012 was undertaken to determine the correlation between approach rear end crash rates at roundabouts and the contribution of the crossfall of the circulating carriageway.

As discussed in Section 2 of this dissertation, Austroads indicated that positive crossfall could lead to higher approach crash rates. It was suggested the central island would be obstructed from the view of approaching traffic, resulting in reduced awareness of the intersection and subsequent rear end collisions. It is an extension of this commentary that an increased approach rear end crash rate for positive crossfall sites is expected.

Of the 10,458 reported crashes in this period, a total of 1162 were classified as rear end crashes. This corresponds to a proportion of about 11% of roundabout crashes. In comparison to Arndt's research, which assessed 492 crashes from 1986 to 1990, there is a 7.2% reduction in the proportion of rear end crashes at roundabouts. This could be explained by two factors:

- Arndt's database of crashes was significantly smaller (less than 5%) than the number of crash records collated for this research
- Vehicle safety standards have improved markedly since the period of Arndt's research. Specific features such as anti-lock braking systems, improved tyre technology and stability control systems have contributed to overall reductions in rear crash rates. (Allianz, 2014).

Figure 5 shows the proportion of crashes between the roundabouts of different crossfall. Positive crossfall sites accounted for the largest number of crashes, with 633, supporting Austroads commentary. Negative crossfall roundabouts accounted for 301 whilst 228 of the crashes were unable to be verified due to other factors. The unverified sites and/or crashes have been removed from any subsequent statistical analysis in this section.

Number of Approach Rear End Crashes at Roundabouts

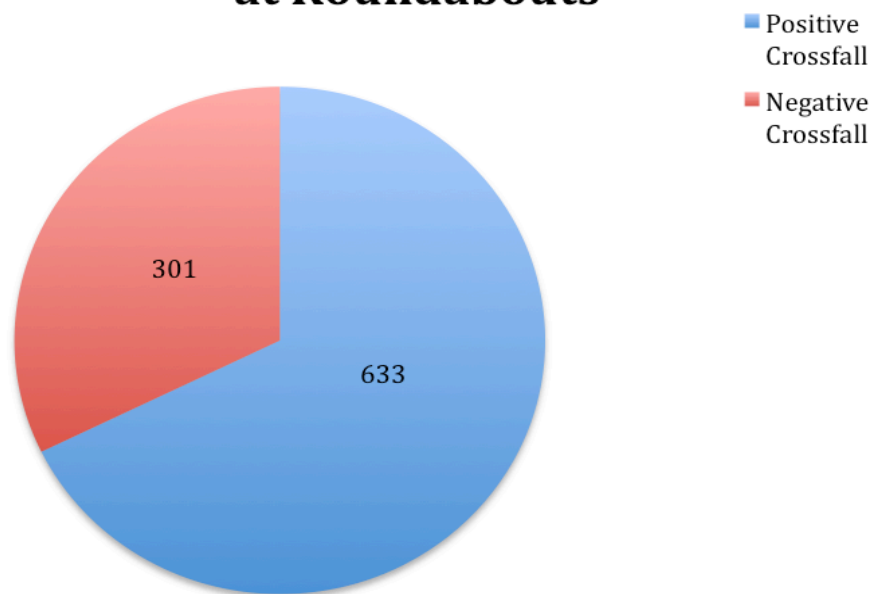


Figure 5 Approach rear end crashes at roundabouts

Based on Figure 5, it is evident that positive crossfall roundabouts account for a higher volume of approach rear end crashes. Further analysis was undertaken to consider the effects of competing factors to the causation of approach rear end crashes at roundabouts.

Rate of crashes per roundabout

Repeated crashes at each site indicate design or environment deficiencies. An uneven weighting of results in this analysis would indicate that crossfall

and approach rear end crashes, being the only common elements, have a high positive correlation.

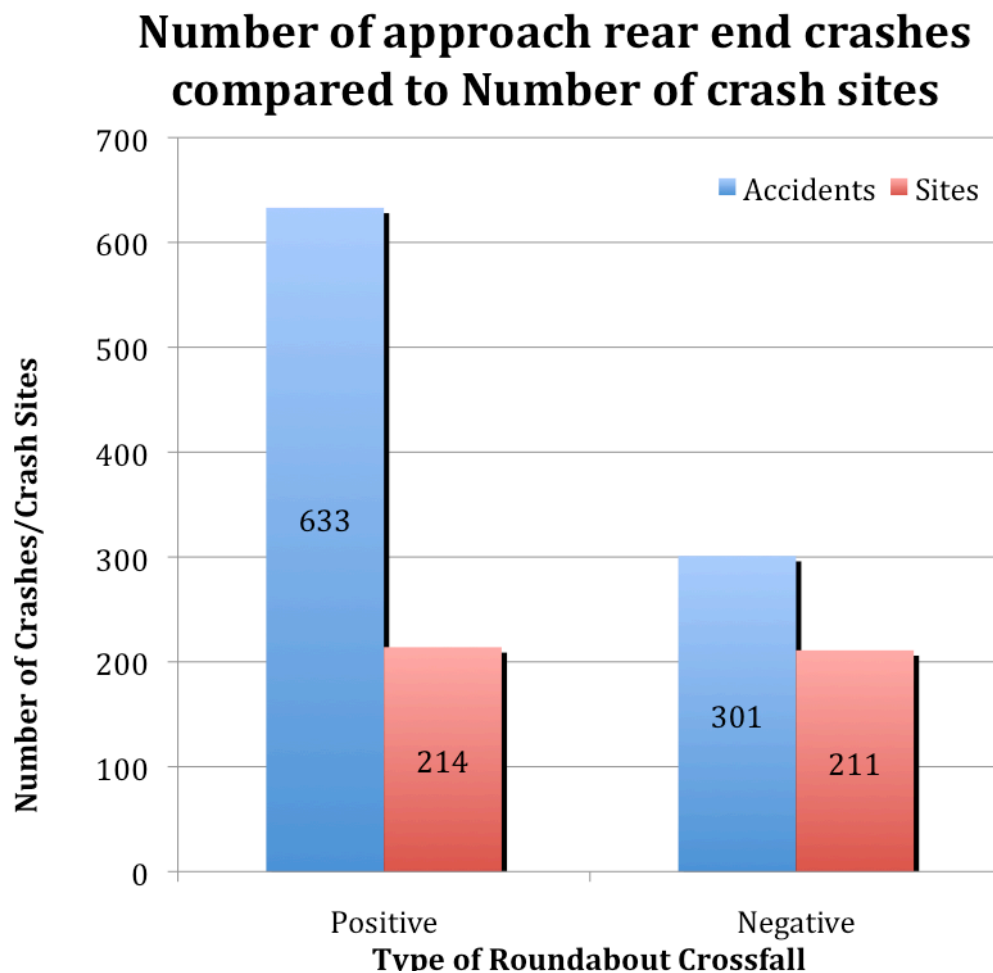


Figure 6: Comparison of positive and negative crossfall roundabout crashes with the number of crash sites

As confirmed in Figure 6, the number of crash sites during the 12-year period was very similar (refer to red columns) between the two crossfall types. 633 positive crossfall crashes occurred across 214 unique sites whilst 301 negative crossfall crashes occurred across 211 unique sites. This is an even distribution of crash sites yet heavily skewed distribution of the crash count per unique site.

This discrepancy highlights the recurring crashes at the same positive crossfall roundabout sites. A recurring pattern of crashes at each site could be attributed to positive crossfall sites experiencing higher traffic volumes. Without specific long-term investigations, there is little evidence to verify the number of movements per crash at such sites. This is a limitation of this investigation.

Otherwise, a significantly higher recurrence of crashes at the same sites indicates a design or site deficiency. Based on the 2:1 overrepresentation of approach rear end crashes at positive crossfall roundabouts a strong correlation exists between positive roundabout crossfall and approach rear end crashes, supporting Austroads commentary.

Proportion of approach rear end crashes on wet roads

Wet road surfaces are proven to result in increased approach rear end crashes (Yan, 2005). A high proportion of wet surface crashes diminish the significance of the findings since wet road pavement results in reduced grip and therefore reduced stopping capacity of vehicles.

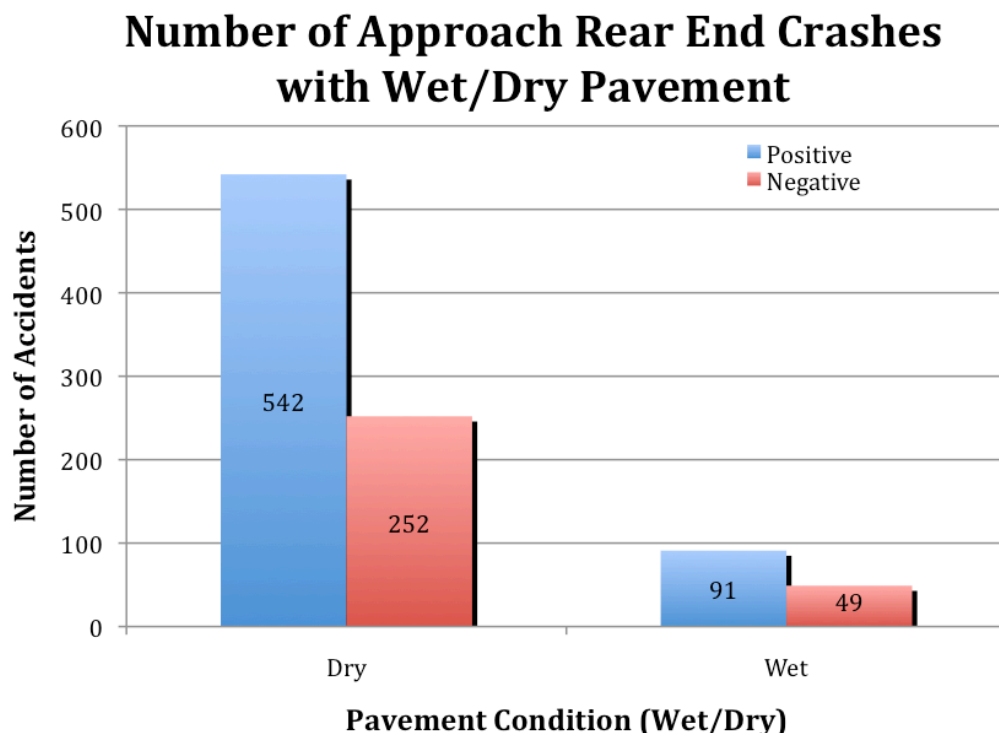


Figure 7 Proportion of approach rear end crashes with wet/dry road surface

From the crash records, the number of approach rear end crashes at roundabouts is significantly lower during wet weather periods. However, the data collated has not considered the number of wet weather days compared to dry weather days to determine a weighted occurrence rate. This is beyond the scope of this investigation.

The minor proportion of approach rear end crashes in wet weather adds value to the significance of other elements such as the type of crossfall. The impact of wet weather and potential reductions in grip leading to inflated approach rear crash rates are limited since wet weather crashes account for less than 15% of the total recorded.

In both weather conditions approximately two thirds of the crashes occurred on approach to positive crossfall roundabout proving the diminished travel conditions associated with wet weather have not affected the crash distribution between positive and negative crossfall. This is most likely

attributed to the common design guidelines applied to the approaches of positive and negative crossfall sites. The variation in crossfall occurs only on the circulating carriageway.

It can be concluded wet pavement does not affect the proportion of approach rear end crashes, regardless of the crossfall of the circulating carriageway.

Proportion of approach rear end crashes by speed zone

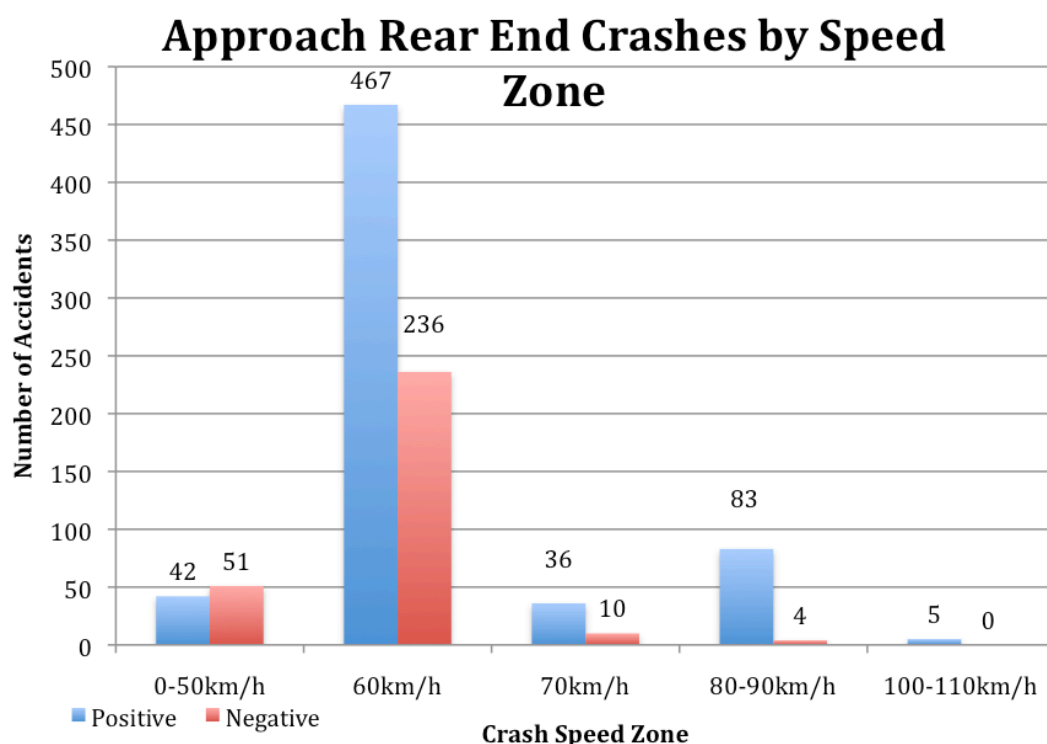


Figure 8 Proportion of approach rear end crashes by speed zone

The proportion of approach rear end crashes has a positive correlation to the operating speed zone. Contrary to the overall rate of crashes, negative crossfall sites are overrepresented in speed zones of 50km/h and less. At 60km/h, the proportion of crashes at each type of roundabout reverts to the statistical normal with positive crossfall sites accounting for 2/3 of the reported crashes. Beyond 60km/h, the trend increases in magnitude with positive

crossfall sites accounting for a larger amount of approach rear end crashes. Increases to the posted speed limit correlate strongly to increased proportions of approach rear end crashes at positive crossfall roundabouts.

Approach rear end crashes by vehicle type

Figure 9 highlights the distribution of vehicle types involved in approach rear end crashes. The results are reflective of the overall results skew towards positive crossfall sites. Neither vehicle type is overrepresented given the statistical information on registered road fleets.

There is a strong indication that vehicle type does not affect approach rear end crash proportions at roundabouts. This places added significance on site factors including crossfall.

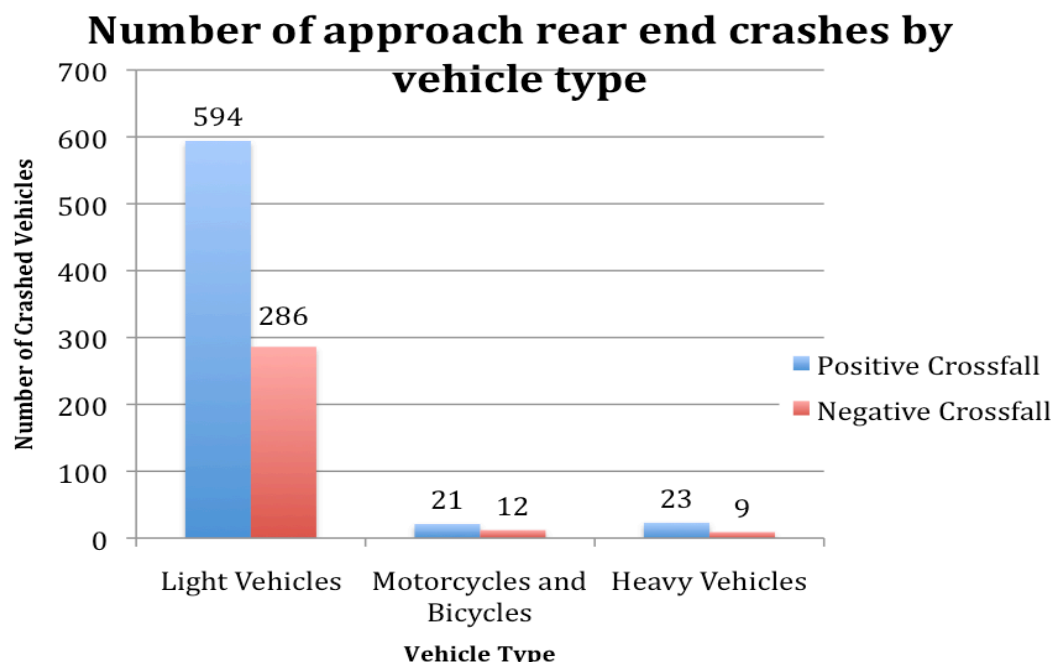


Figure 9 Vehicle types involved in approach rear end crashes

Key findings - approach rear end crashes

- Positive crossfall sites account for approximately 2/3 of approach rear end crashes
- Neither crossfall type exhibited varied proportions of crashes during wet conditions
- At low speeds (0-50km/h), negative crossfall roundabouts account for an overrepresented proportion of approach rear end crashes
- The majority of the approach rear end crashes occur in 60km/h speed zones with positive crossfall sites accounting for 2/3 of these crashes.
- Above 60km/h, negative crossfall sites account for an underrepresented proportion of approach rear end crashes.
- Neither type of crossfall exhibited varied proportions of crashes for different vehicle types

4.2 Entry/Circulating Crashes

An Entry/circulating crash is the most common form of crash at roundabouts. The data collected identified 3,848 of the 10,458 crashes as entry/circulating crashes. This equates to approximately 40% of the total roundabout crashes.

Extensive investigation has been undertaken by academics to explain this type of crash since it accounts for the largest proportion of roundabout crashes. The general consensus of findings indicates approach speed is a major causation factor and reductions in the approach speed translated successfully to a reduction of entry/circulating crashes at roundabouts.

The majority of roundabout design principles and reference material supports the practice of reducing speed limits of approach geometry towards a roundabout. Arndt's crash research, including his crash prediction modelling indicates the major proportion of crashes is the entry/circulating type at roundabouts. No investigation has been undertaken to determine the potential causation effects of these proportions and trends based on the crossfall of the circulating carriageway.

Multiple criteria are examined in this analysis to attempt to identify a correlation between the crash proportions and rates, and the type of crossfall at roundabouts.

For this investigation, roundabout crashes in 2010 were used to deliver trends and findings. A single year was chosen due to the relatively large number of crashes per individual year. A total of 466 crashes were recorded in 2010. This is sufficient sample to analyse and extract trends. 17 crashes occurred at roundabouts that have since been upgraded or unable to accurately sighted. These have been removed from subsequent analysis in this dissertation. The use of 2010 resolves limitations and risks of superseded data and changes to the road environment since the time of crash.

Number of Entry/Circulating Crashes at Roundabouts

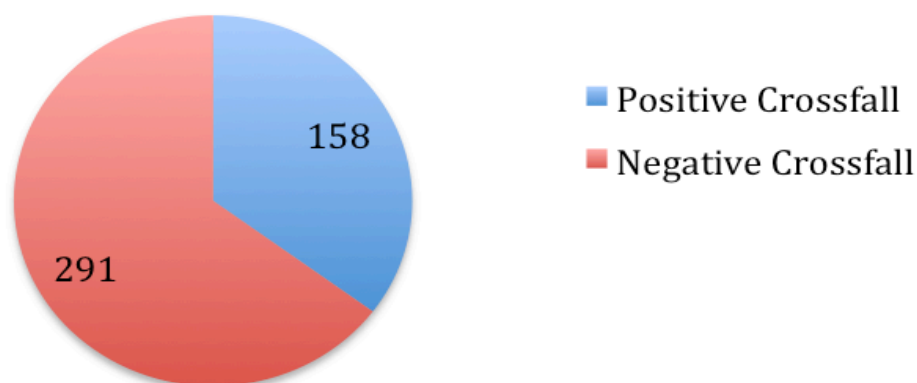


Figure 10 Entry/circulating crashes at roundabouts

A majority of entry/circulating crashes occurred at negative crossfall roundabouts. This trend is inversely proportional to the approach rear end crash results. There is an overrepresentation of almost 2:1 for entry/circulating crashes at negative crossfall roundabouts. Further statistical analysis was undertaken to determine co contributing impacts.

Proportion of entry/circulating crashes by speed zones

The approach speed zones were collated and assessed to determine the weighting of speed towards these crashes. Arndt, Maycock and Hall and others identified speed as a leading contributor to entry/circulating crashes. As shown in Figure 11, lower speed zones, in this instance, speed zones at 60km/h or lower are extremely overrepresented. They account for more than 95% of all entry/circulating crashes. Given the majority of results occur in two speed zones, they are both consistent with the overall proportion of positive

and negative crossfall crashes shown in Figure 10. The effect of crossfall is diminished by the stronger correlation with lower speed zone roundabouts.

As speed zones increase the rate of entry/circulating crashes diminishes proving that high-speed zones do not significantly affect the rate of entry/circulating crashes. Furthermore, the split between the types of crossfall approaches parity at these speed zones. It is noted that the number of results in these speed zones is relatively small. Regardless, a relatively even distribution of the high-speed speed zone crashes indicates a random nature of events, less dependent on recurring circumstances.

A limited correlation between crossfall and entry/circulating crashes is available. Speed zones appear to be the primary affectation factor, especially at low speed negative crossfall roundabouts.

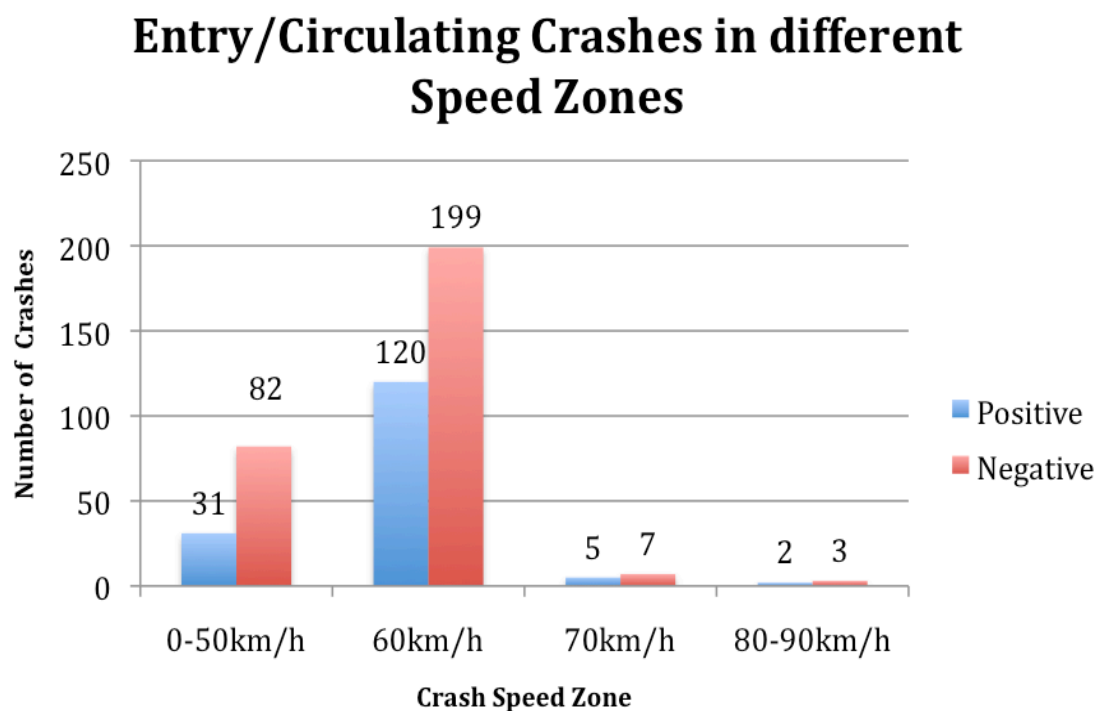


Figure 11 Entry/circulating crashes by speed zone

Vehicle types involved in entry/circulating crashes

Light vehicles account for the large majority of vehicles at fault, which is consistent with the road registered fleet being 94% light vehicles (e.g. cars)(Queensland Transport, 2013).

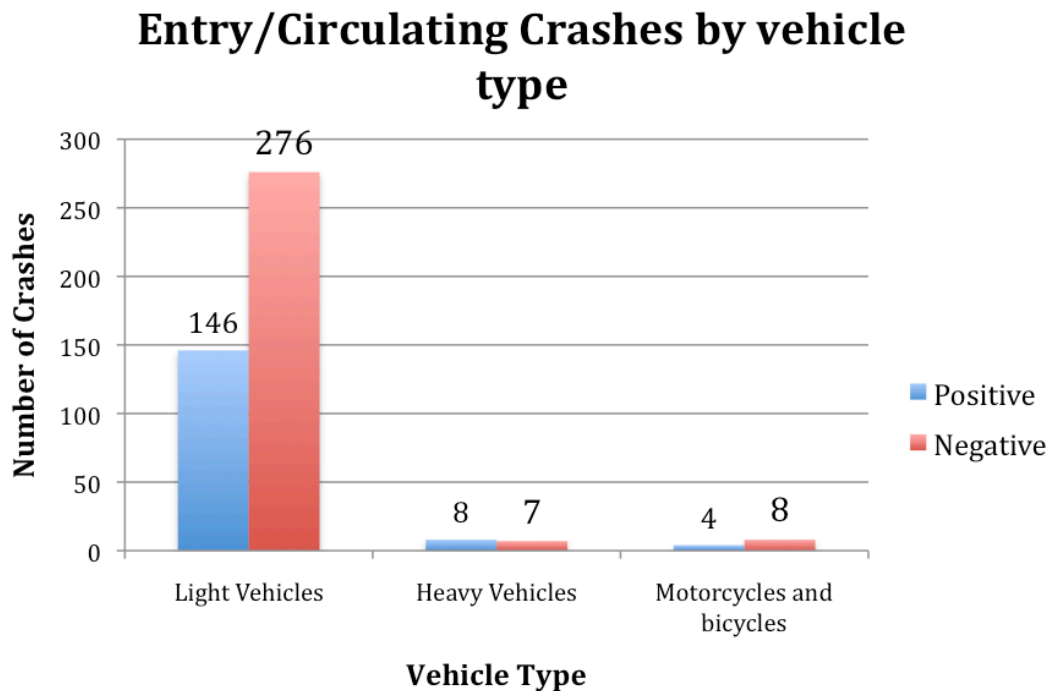


Figure 12 Vehicle types involved in entry/circulating crashes

The mixture of vehicle types involved in entry/circulating crashes at roundabouts closely represents the registered road fleet in Queensland and is adherent to the 2:1 overall ratio between positive and negative crossfall. It is conclusive that vehicle type does not affect the rate and proportion of entry/circulating crashes.

The information in Figure 12 is consistent with the data in about speed zones in Figure 11 since those roundabouts are generally smaller and trafficked by light vehicles, accounting for the large proportion of light vehicle involvement.

Proportion of entry/circulating crashes on wet roads

As per the vehicle type comparison, the overall 2:1 ratio of crashes between crossfall types is closely maintained in Figure 13. This indicates wet road surface conditions impact both types of sites equally.

Approximately 17% of crashes occurred on a wet road surface, which is similar to the 15% of approach rear end crashes that occurred on wet road surfaces.

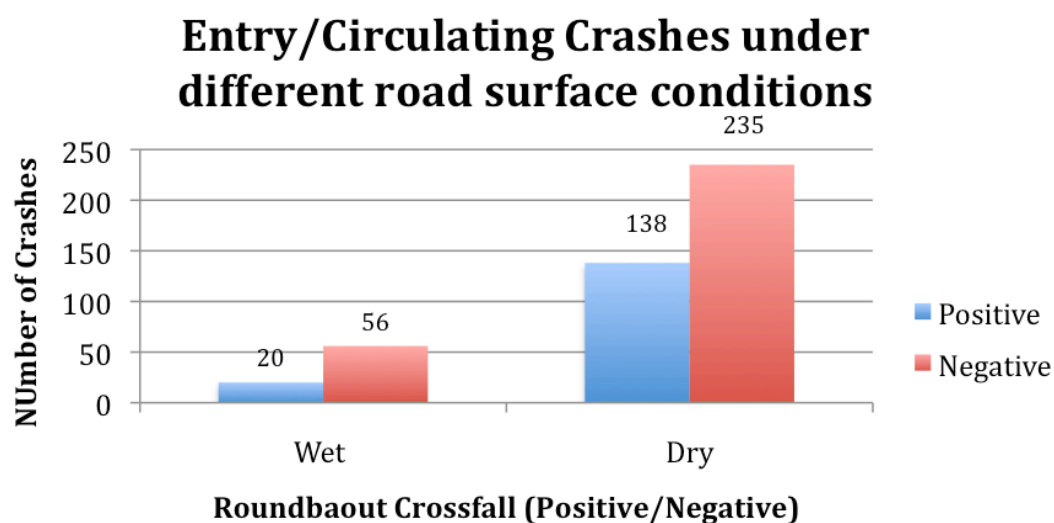


Figure 13 Proportion of entry/circulating crashes with wet/dry road surface

Intended movements for at-fault vehicles in entry/circulating crashes

Straight through movements are an overriding majority in entry/circulating crashes, as shown in Figure 14, accounting for 72% of entry/circulating crashes. Although in relatively minor amounts, right turning vehicles are in nearly twice as many entry/circulating vehicles as left turning vehicles, 18% and 10% of the total crash count respectively.

The straight through movement proportion mirrors the overall ratio of crashes between positive and negative crossfall sites. However in instances where the

at-fault vehicle intended to turn (left or right) at roundabouts the proportion of crashes between positive and negative crossfall approaches parity.

Effectively, the rate of involvement in entry/circulating crashes increases for vehicles turning left or right at positive crossfall sites. Straight through movements follow the aforementioned trends for entry/circulating crash rates and do not vary in proportion.

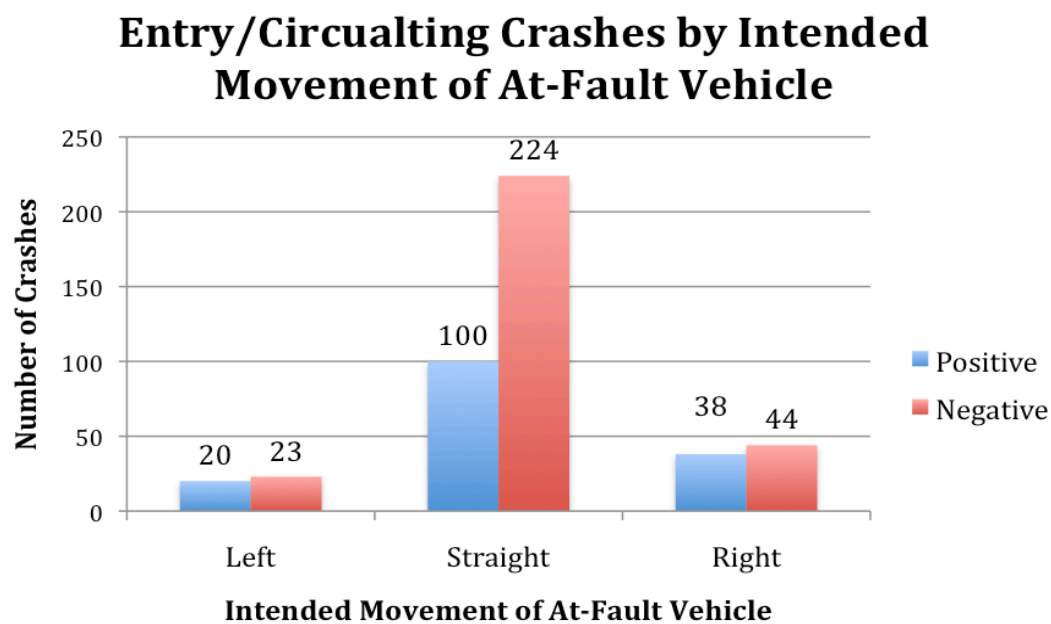


Figure 14 Intended movement of at-fault vehicle in entry/circulating crashes

Key findings - entry/circulating crashes

- Negative crossfall sites account for approximately 2/3 of entry/circulating crashes
- Low speed zones (0-60km/h) account for approximately 96% of the entry/circulating crashes
- Higher speed zones are underrepresented entry/circulating crashes
- Neither crossfall type exhibited varied proportions of crashes during wet conditions

- 72% of entry/circulating crashes occurred with the vehicle intending to travel straight through.
- The proportion of entry/circulating crashes at positive crossfall sites approached parity for turning movements

4.3 Single Vehicle Crashes

Single Vehicle crashes are defined in Section 2 of this dissertation and comprise crashes which the vehicle on the roundabout has lost control. Results of these accidents include:

- Existing the road area in an uncontrolled manner
- Colliding with roadside objects
- Colliding with other stationary vehicles

Single vehicle crash statistics do not include overturning accidents. These will be discussed independently in the following section.

Single vehicle crashes accounted for 2,865 crashes of the 10,458 crashes, equating to 27% of all roundabout crashes in Queensland between 2001 and 2012. The following investigation of single vehicle crashes focuses on such crashes occurring in Queensland during 2010. 269 accidents were identified, which includes 17 crashes at roundabouts that have since been upgraded or unable to accurately sighted. These have been removed from subsequent analysis in this dissertation. The effective total of 252 has been analysed.

The single vehicle crashes occur with a higher rate on negative crossfall roundabouts. The breakdown of single vehicle accidents is similar to the breakdown of entry/circulating crashes between crossfall types.

A similar assessment of causation factors was undertaken to determine the weighting of crossfall on circulating carriageway, contributing to these crashes.

As shown in Figure 15, negative crossfall sites accounted for 62% of the single vehicle crashes in 2010.

Number of Single Vehicle Crashes at Roundabouts

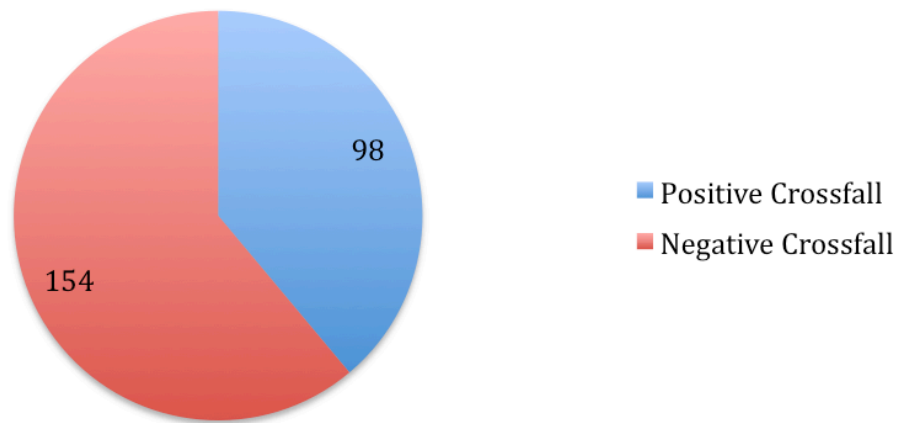


Figure 15 Single vehicle crashes at roundabouts

Proportion of single vehicle crashes by speed zone

Similar to entry/circulating crashes, there is a large overrepresentation in speed zones up to 60kmh with 94% of crashes occurring in these speed zones.

At 60km/h, the proportion of crashes between the different sites approaches parity. This parity between crossfalls is not reflected at speeds other than 60km/h. At speed zones other than 60km/h, the proportion of single vehicle crashes at positive crossfall sites reduces to approximately 25%.

At speed zones above 60km/h there are further reductions in the participation of positive crossfall crash sites, accounting for 3 of 15 (20%) of the total.

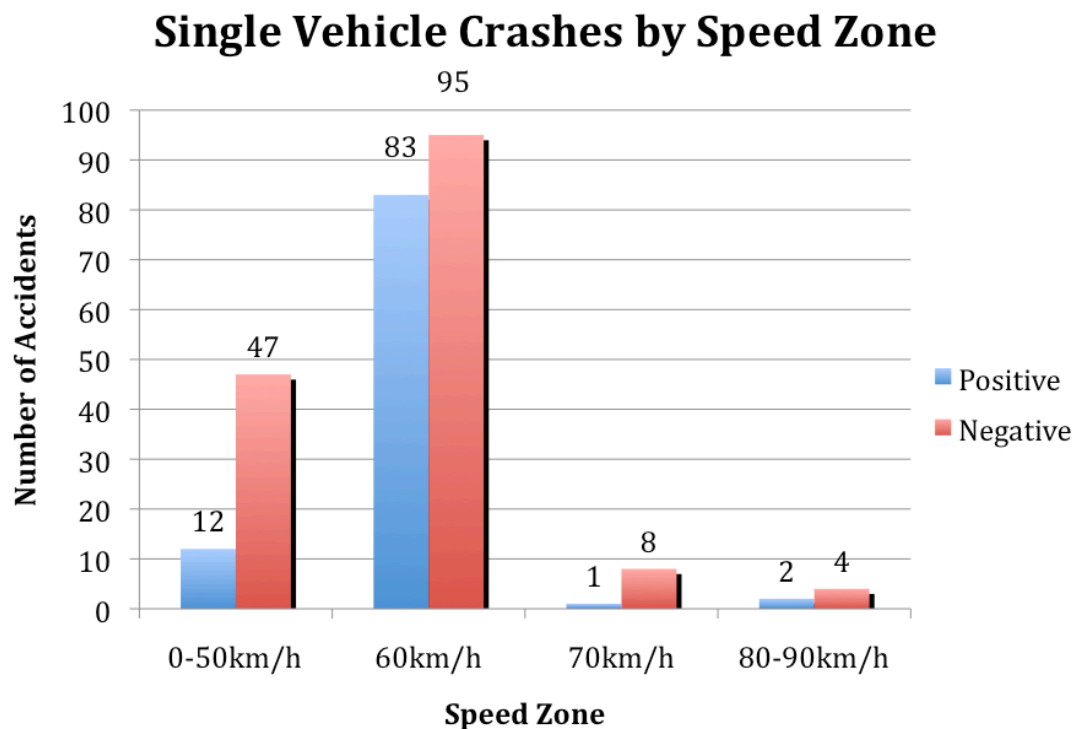


Figure 16 Single vehicle crashes by speed zone

Single vehicle crashes by vehicle types

The profile of vehicles involved in single vehicle crashes does not accurately reflect vehicle traffic and the registered road fleet. Traffic volumes are not available to determine the volumes of traffic and vehicle types using each roundabout however based on the results shown in Figure 17, particular vehicle types are overrepresented.

Motorcycles and bicycles are heavily overrepresented in single vehicle crashes. They account for approximately 18% of the total. This is a significant proportion given that motorcycles represent a minority of the road-registered fleet of vehicles in Queensland. According to the Australian Bureau of Statistics, they accounted for less than 5% of total registrations in Queensland in 2010. Consistent with the overall proportion of single vehicle crashes in Figure 15, negative crossfall roundabouts result in a higher rate of motorcyclists losing control.

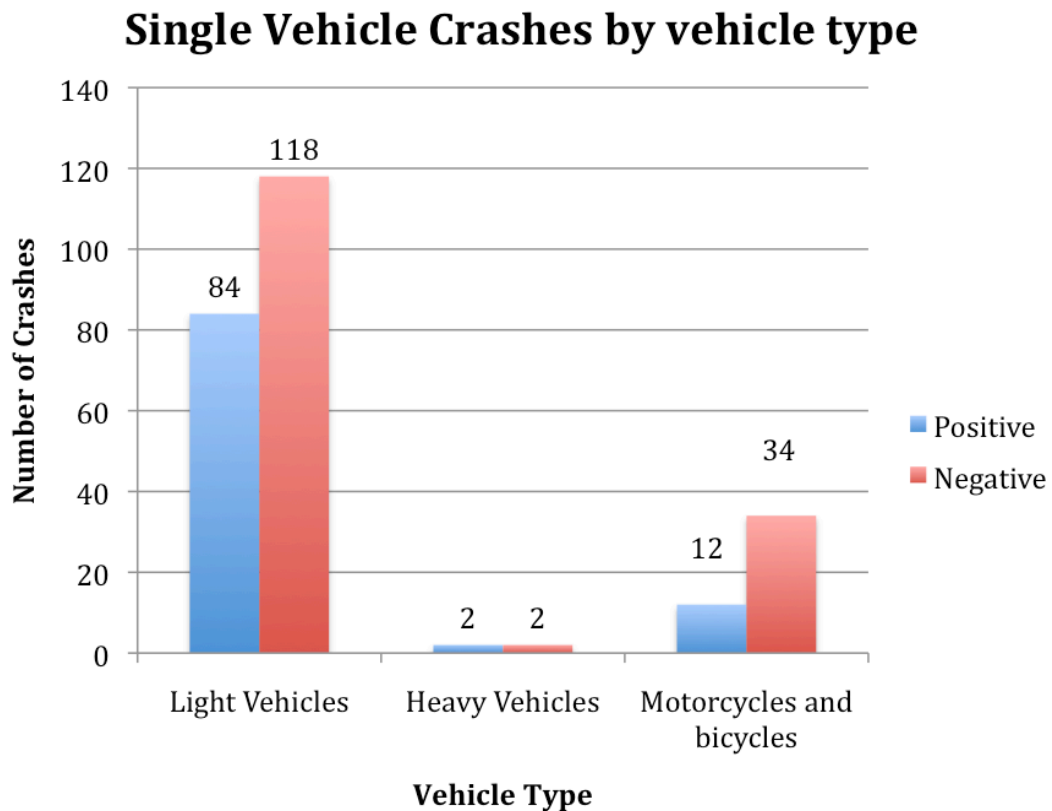


Figure 17 Vehicle types involved in single vehicle crashes at roundabouts

Proportion of single vehicle crashes on wet roads

Figure 18 illustrates the impact of a wet road surface in a single vehicle crash at roundabouts. In this assessment, wet surfaces are present in almost 40% of all single vehicle crashes. This is significantly larger than the mean value of 16% for wet surface involvement in approach rear end and entry/circulating accidents.

Single Vehicle Crashes under different road surface conditions

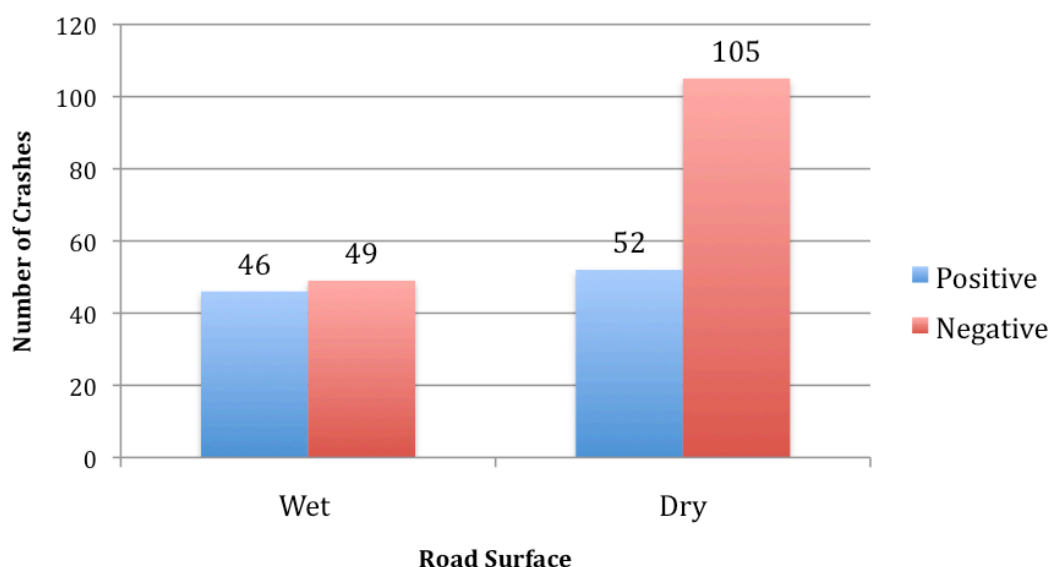


Figure 18 Proportion of single vehicle crashes with a wet/dry road surface

The rate of accidents under dry conditions is consistent with overall findings. In relative terms, negative crossfall is represented in approximately twice as many single vehicle crashes as positive crossfall sites. There are a significantly higher proportion of crashes on positive crossfall sites with a wet road surface. The proportion approaches parity.

Further consideration of motorcycles crashes reveals that six crashes occurred in wet conditions and on negative crossfall roundabouts. This equates to 6 of the 34 (18%) identified in the previous section. 1 of 12 (8%) crashes was recorded on a wet positive crossfall site. There is sufficient evidence to suggest a correlation between motorcycles, wet surface conditions and the crossfall of a roundabout with positive crossfall performing better in wet conditions.

Light vehicles comprised the majority of wet surface accidents, accounting for 42 of the 46 at negative crossfall sites and 44 of the 49 at positive crossfall

sites. These proportions are consistent with the overall representation of light vehicle involvement in single vehicle crashes at roundabouts.

Apart from motorcycles, the rate of single vehicle crashes at positive crossfall sites increases on a wet road surface with 47% of single vehicle crashes at involving a wet road surface. At negative crossfall sites, 32% involved wet surfaces. Both proportions are relatively high when compared to other crash types. The near 50% involvement in single vehicle crashes at positive crossfall roundabouts indicates a strong correlation between wet road surfaces and positive crossfall roundabouts.

Intended movements in single vehicle crashes

As with entry/circulating accidents, the intended movement of the crashing vehicle is often a straight through movement. In single vehicle crashes, the vehicle is performing a straight through movement in over 75% of crashes. Neither crossfall is overrepresented in any of the movements. Right turn crashes result in a slightly higher proportion of positive crossfall crashes. The increase is not significant given the relatively small proportion of accidents observed compared to the large amount of movements performed.

Single Vehicle Crashes by Intended Vehicle Movement

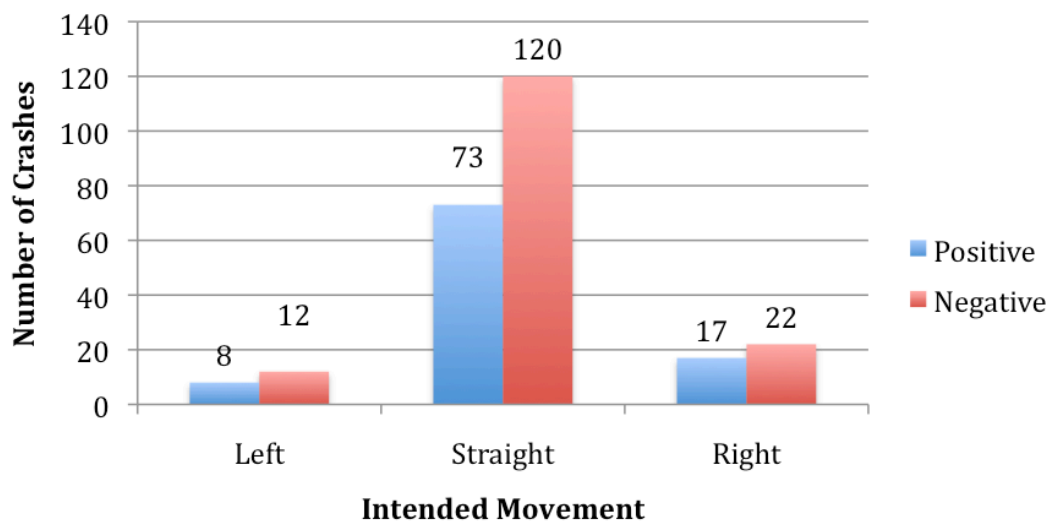


Figure 19 Intended movements of vehicles involved in single vehicle crashes

Figure 19 highlights the correlation between straight through movements and single vehicle crashes. The effect of crossfall is less prominent.

However, Table 3 outlines the proportions of crashes for each intended movement with a wet road surface. The results are consistent with the proportions described in the previous section with positive crossfall forming a consistent majority of crashes in wet conditions.

Table 3 Proportion of wet weather, single vehicle crashes by intended movement

	Positive Crossfall	Negative Crossfall
Left Turn	37%	33%
Straight Through	50%	30%
Right Turn	42%	27%

The consistency between Table 3 and Figure 18 highlights the overriding contributor to single vehicle crashes is the wet road surface, particularly at positive crossfall sites. Under wet conditions, the intended movement of the vehicle is a minor factor with each movement similarly impacted.

Key findings - single vehicle crashes

- Negative crossfall sites account for approximately 2/3 of single vehicle crashes at roundabouts
- 94% of crashes occurred in speed zones of 0-60km/h speed zones
- Higher speed zone crashes underrepresented on positive crossfall roundabouts. Accounted for 20% of these crashes (3 of 15)
- Motorcycles are overrepresented in single vehicle crashes, accounting for 18% of all crashes with a higher representation of motorcycle crashes at negative crossfall sites.
- Positive crossfall roundabouts reduced rate of motorcycle crashes in wet weather.
- 47% of positive crossfall and 32% of negative crossfall crashes occurred on a wet road surface.
- Approximately 77% of crashes occurred with the vehicle intending to perform a straight through movement.

4.4 Overturned Crashes

Overturned Crashes are preceded by large lateral forces on vehicles. As outlined in literature reviewed in Section 2, roundabouts provide an ideal environment to promote rollover of vehicles. Overturned crashes are a specific form of single vehicle crash that will be considered separately in this section.

For the assessment of overturned crashes, data was collated for all roundabouts in Queensland between 2001 and 2012. A total of 159 overturned crashes occurred during this period. 12 occurred on roundabouts that have since been upgraded or were unable to be accurately sighted. These have been removed from subsequent analysis in this dissertation. An effective total of 147 has been analysed in this section. This equates to an overturning proportion of approximately 1.5% of crashes, which is consistent with the statistical research by Arndt in 1998.

Figure 20 outlines the overrepresentation of positive crossfall overturned crashes. Positive crossfall sites account for 70% of the total overturned crossfall crashes recorded.

Number of Overturned Crashes at Roundabouts

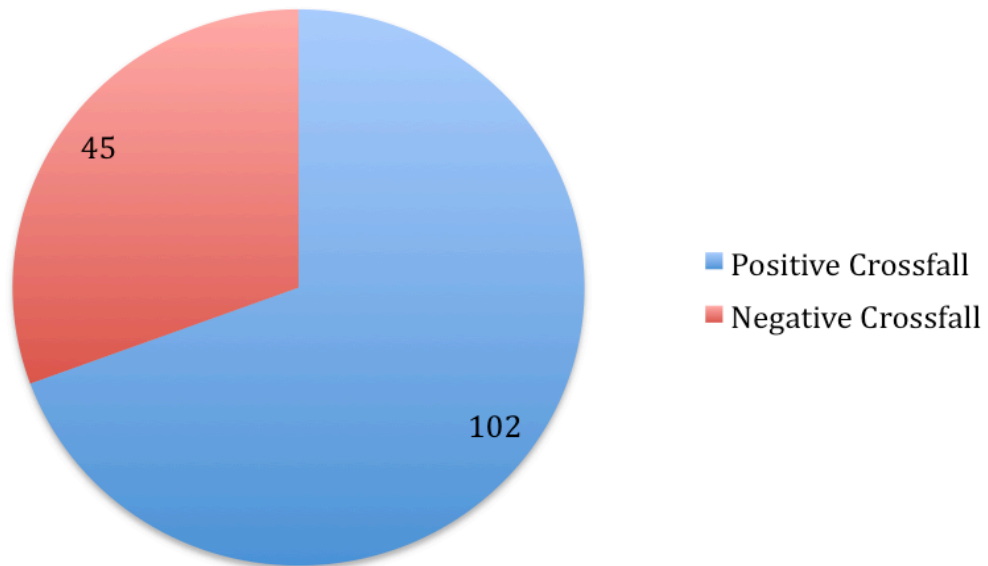


Figure 20 Overturned crashes at roundabouts

Rate of crashes per roundabout

A repeated crash type at roundabouts indicates a design deficiency or external factor that creates a hazard to traffic. As shown in Figure 21, the difference between the numbers of sites for positive and negative crossfall crashes compared to the number of crashes recorded at positive crossfall sites is larger.

Numer of roundabout crash sites compared to number of overturned crashes

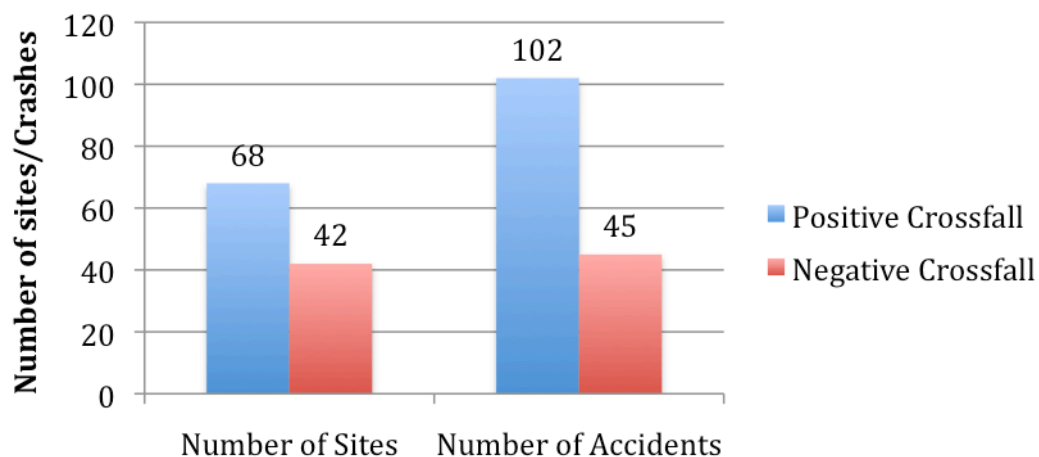


Figure 21 Number of overturned crashes compared to number of crash sites

68 unique positive crossfall sites provided 102 overturned crashes, whilst 42 negative crossfall sites provided 45 overturned crashes. The discrepancy is significant with the identified positive crossfall sites accounting for an average of 1.5 overturned crashes whilst negative crossfall sites appeared to produce the single crash.

This high recurrence across multiple positive crossfall roundabouts highlights the strong correlation between the design of positive crossfall roundabouts and overturned crashes.

Proportion of overturned crashes by speed zone

Over 75% of overturned crashes at roundabouts occurred in speed zones of 0-60km/h. Two distinct trends are shown in these low speed zones. Overturned crashes on negative crossfall sites at or below 50km/h are

overrepresented. They account for approximately 63% of the accidents in this speed zone range.

At 60km/h, the trend reverses with the proportion of overturned crashes at negative crossfall sites reducing to 36%. Two thirds of all overturned crashes occurred at 60km/h.

Beyond 60km/h, positive crossfall roundabouts are infinitely overrepresented with 35 accidents compared to none recorded at negative crossfall roundabouts. This is a large overrepresentation and a strong indication of the link between high-speed roundabouts, positive crossfall and overturned crashes.

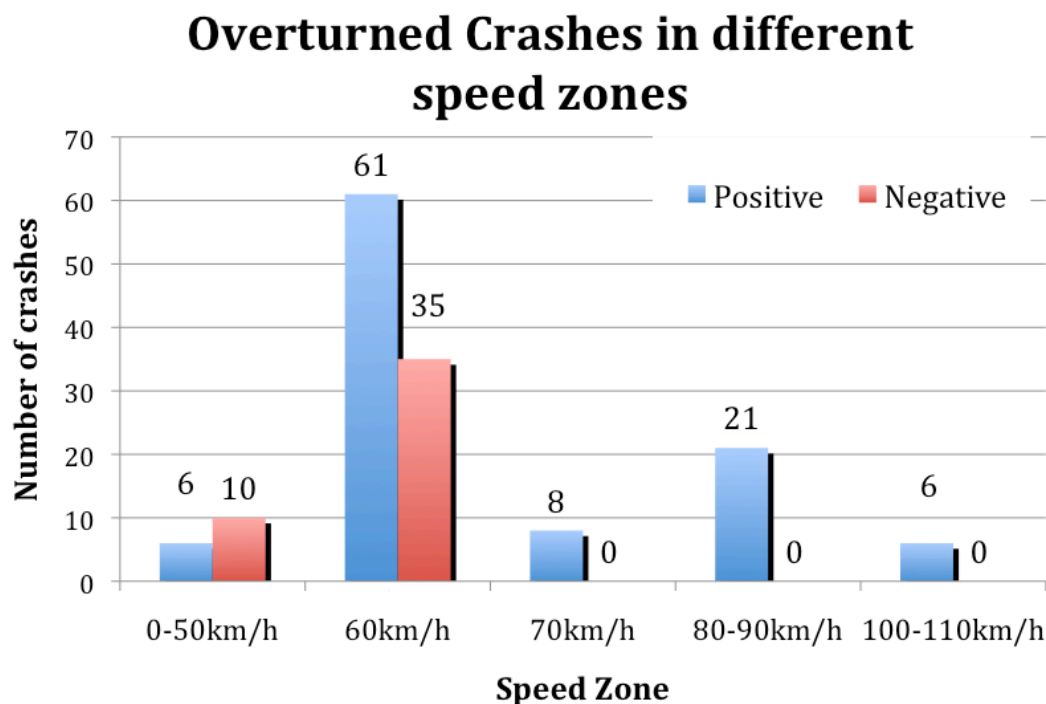


Figure 22 Overturned crashes in different speed zones

Overturned crashes by vehicle type

Figure 23 highlights the proportion of vehicle types involved in overturned crashes. As suggested in section 2, there are a substantial proportion of

heavy vehicles represented in vehicle rollovers. Including, other vehicles which are special purpose vehicles and heavy in nature, they account for over 40% of the overturned crash statistics. This finding is consistent with the Milliken and de Pont research that found that heavy vehicles were involved in 40% of rollovers at horizontal curves. Considering the heavy vehicle fleet comprises less than 15% the registered vehicle fleet in Queensland (Australian Bureau of Statistics, 2014) this is a significant overrepresentation.

In relative terms, 70% of heavy vehicle rollovers occurred at positive crossfall sites, which is identical to the proportion of light vehicles involved in positive crossfall rollovers. This diminishes the relationship between positive crossfall and heavy vehicles and broadens it to all vehicle types.

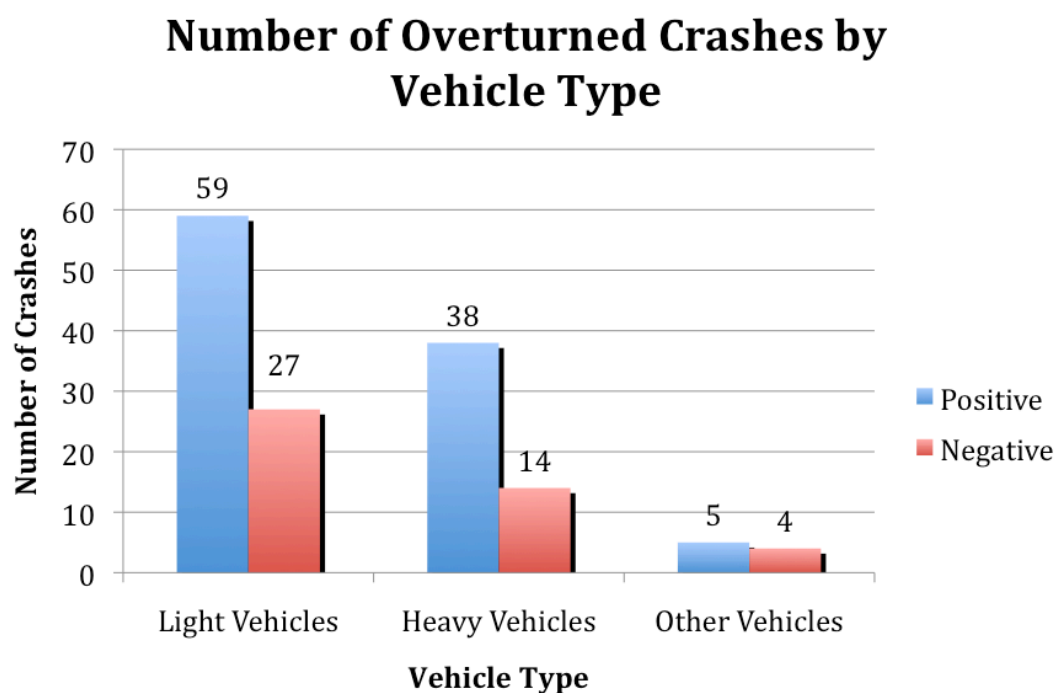


Figure 23 Overturned crashes by vehicle type

Proportion of overturned crashes on wet roads

Figure 24 highlights the ratio of overturned crashes on wet and dry road surfaces. The proportion of dry weather crashes is consistent with overall findings.

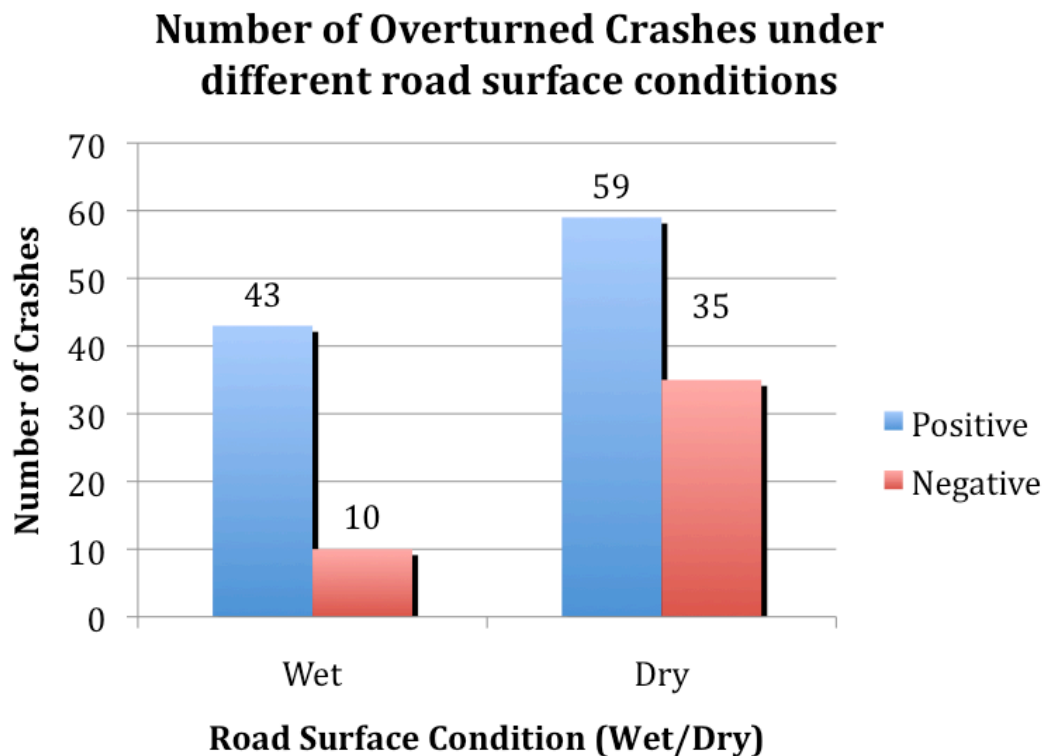


Figure 24 Overturned crashes by wet/dry road surface

The proportion of wet surface crashes to dry surfaces is relatively high, although consistent with the single vehicle crash proportions. Approach rear end and entry/circulating crashes are multi vehicle crash types and had wet weather involvement of approximately 15%.

Single vehicle crashes including overturned, have dramatically higher involvement with approximately 40% on wet surfaces. Contrary to this overrepresentation of wet surface crashes; negative crossfall roundabouts are underrepresented, accounting for less than 7% of the total crashes, compared to 33% for positive crossfall sites.

63% of the accidents that occurred in speed zones of 70km/h and greater occurred on wet road surfaces. This confirms a strong propensity for overturned crashes between high-speed zones, a wet road surface and positive crossfall roundabouts. Under the same conditions, no accidents were reported at negative crossfall sites, confirming the contribution of positive crossfall in these crashes.

Intended movements of vehicles in overturned crashes

Figure 25 highlights the different intended movements of the overturned vehicles. During all movements, excluding the straight through movement, the amount of accidents approaches parity, indicating an underperformance of negative crossfall sites or improved performance of positive crossfall sites. The overall findings indicated two-thirds of crashes were on positive crossfall sites however when considering movements alone, the proportion reduces to an almost even distribution for turning movements.

The results for overturned crashes by vehicles intending to travel straight at roundabouts is significantly in favour of negative crossfall sites and completely offsets any benefits positive crossfall may offer turning vehicles. Almost half of all overturned crashes occurred with vehicles travelling straight at positive crossfall sites.

Intended movement of overturned crash vehicles

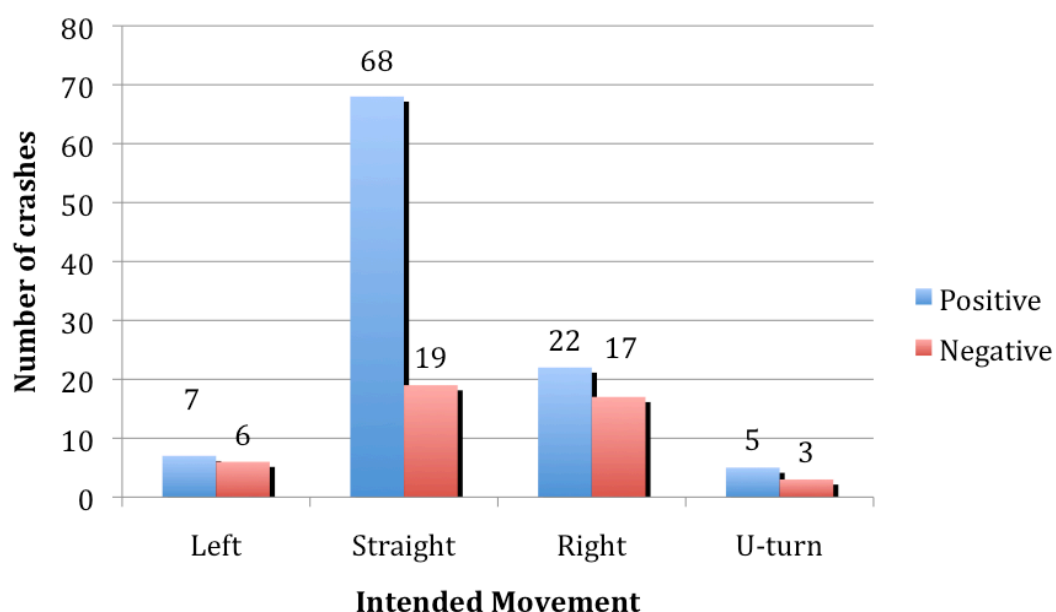


Figure 25 intended movements of vehicles involved in overturned crashes

Additionally, 49% of the straight through crashes at positive crossfall sites included wet road surfaces. This is significantly higher proportion than negative crossfall crashes of the same type. This indicates a strong correlation between positive crossfall sites, straight through movements and particularly with a wet road surface.

Key findings - overturned crashes

- Positive crossfall sites account for approximately 70% of overturned crashes
- Higher rate of crashes at each positive crossfall roundabout assessed
- 63% of overturned crashes in 0-50km/h speed zones occurred with negative crossfall roundabouts

- Above 60km/h, positive crossfall sites accounted for all overturned crashes.
- Heavy vehicles accounted for 40% of all crashes with 75% of these occurring at positive crossfall sites.
- 40% of crashes occurred on a wet road with 83% of these at positive crossfall sites.
- 63% of crashes in speed zones above 60km/h occurred on a wet road with all of these at positive crossfall sites.
- 46% of all crashes occurred at positive crossfall sites with the overturned vehicle performing a straight through movement at the roundabout. 49% of these crashes included wet roads.
- The proportion of overturned crashes at both crossfall types approached parity for turning movements

4.5 Summary of Results

Table 4 Summary of Results

	Overall Proportion	Impact of Speed Zone	Impact of wet weather	Impact of Vehicle Type	Impact of intended Movement
Approach Rear End	Positive crossfall accounts for 2/3 majority	Negative crossfall overrepresented in 0-50km/h speed zones. Majority of crashes occur at 60km/h with positive crossfall accounting for two-thirds. Above 60km/h, positive crossfall overrepresented	None	None	Not Applicable
Entry/ Circulating	Negative crossfall accounts for 2/3 majority	96% of entry/circulating crashes occurred in 0-60km/h speed zones Higher speed zones significantly underrepresented	None	None	72% of crashes intended straight through movements with 2/3 of these crashes on negative crossfall sites Crossfall had negligible impact on turning movements with almost even distribution

	Overall Proportion	Impact of Speed Zone	Impact of wet weather	Impact of Vehicle Type	Impact of intended Movement
Single Vehicle	Negative crossfall accounts for 2/3 majority	94% of crashes occurred in 0-60km/h speed zones Positive crossfall underrepresented in higher speed zone crashes	47% of positive crossfall crashes and 32% of negative crossfall crashes occurred on a wet road surface	Motorcycles overrepresented, accounting for 18% of crashes with a higher representation at negative crossfall sites.	77% of crashes intended straight through movement with neither crossfall overrepresented.
			Significantly reduced rate of motorcycle accidents in wet weather on positive crossfall roundabouts		
Overtaken	Positive Crossfall account for 70% majority Higher rate of crashes at each positive crossfall roundabout assessed	Negative crossfall overrepresented in low speed zones. Positive crossfall infinitely overrepresented in higher speed zones	Wet road surfaces accounted for 40% of overturned crashes. 83% of these crashes were at positive crossfall sites.	Heavy vehicles are involved in 40% of crashes. 75% of these crashes were at positive crossfall sites.	Straight through movements at positive crossfall sites were significantly overrepresented accounting for almost half of the overturned crash total. 49% of these crashes occurred with a wet road surface. Negative crossfall sites overrepresented in turning movement rollovers
		At speed zones above 60km/h, wet road surfaces were significantly overrepresented, contributing to 63% of all crashes.			

Higher Speed Zones (above 60km/h)

An underlying theme in the results presented throughout Section 4 is the significantly higher number of crashes that occurred at higher speed zone, positive crossfall roundabouts. Table 5 highlights the discrepancy between the positive and negative crossfall roundabouts, when higher speed zone crashes are isolated. The strong correlation is a testament to the potential unsuitability of positive crossfall roundabouts in higher speed zones. Factors affecting the various crash types will be discussed further in Section 5.

Table 5 Summary of crashes at roundabouts greater than 60km/h

	Positive Crossfall Crashes	Negative Crossfall Crashes
Approach Rear End	124	14
Entry/Circulating	7	10
Single Vehicle	3	12
Overtaken	35	0
TOTAL	169	36

5. Discussion

5.1 Approach Rear End Crashes

Positive crossfall roundabouts resulted in a two-thirds majority involvement in approach rear end crashes. The result supports the commentary in *Austroads: Guide to Road Design* that suggests the sunken island, a unique part of positive crossfall roundabouts would limit approach sight and contribute to a higher rate of approach rear end crashes.

A significantly higher amount of crashes were recorded at positive crossfall roundabouts despite a similar number of positive and negative crossfall roundabout sites. This discrepancy highlights the nature of approach rear end crashes at positive crossfall roundabouts and supports the basis of this research.

Approach rear end crashes rely on approaching drivers sighting roundabout traffic and making a decision to enter the roundabout or give way. Following traffic must make a consistent decision otherwise there is potential for an approach rear end crash or at least heavy braking (Ogden & Newstead, 1994).

When considering positive and negative crossfall sites, a number of approaches and roundabout island views were observed as part of this research. Negative crossfall roundabouts were overrepresented in low speed zones. As shown in Figure 26, the availability of approach sight to adjacent legs of the roundabouts can be limited because of surrounding land use. This scenario is especially common in low speed zones.

These roundabouts are generally designed with less deflection and little consideration of vehicle performance. In many instances of the data collection process, it was observed that they were a retrospective intersection treatment for local roads. Another low speed roundabout is shown in aerial view in

Figure 29. The similarities in layout are representative of the majority of low speed zone roundabouts.

Negative crossfall roundabouts also formed the majority of low speed zone roundabouts due to the inherent difficulties in constructing a positive crossfall roundabout at a local road intersection. Constructing a positive crossfall roundabout requires additional drainage works to the central island and reconstruction of pavement to invert the crossfall and remove the crown of the road. There is also the requirement to extend the area of works to develop smooth crossfall transitions from edge draining approaches (negative) to centre draining (positive) pavement.

In the context of local roads works, these are major civil construction tasks. It is much more cost efficient for local road authorities to construct negative crossfall roundabouts. Local road authorities are most hindered by financial constraints and scope of work limitations. As a result, negative crossfall roundabouts comprised a significant portion of low speed zones.

For these reasons, it is not possible to develop a rigorous link between negative crossfall at roundabouts and the overrepresentation of approach rear end crashes since the trend is confined to low speed, smaller roundabouts which do not allow one to isolate crossfall as a significant cause.



Figure 26 A negative crossfall roundabout at Grey Street/Ernest Street, South Brisbane (Google, 2014)

Roundabouts in speed zones of 60km/h and above were generally much larger in size and often contained multiple lane approaches. It is in this context that approach rear end crashes increased significantly and the trend is reversed from low speed findings to show an increase proportion of approach rear end crashes at positive crossfall roundabouts.

As outlined, the nature of roundabout design and location is significantly varied for different speed zones. There are two main differences in roundabouts that are located in higher speed areas.

- Larger radii islands
- Increased number of lanes and delineation

These elements combine to create a road environment that is inherently more difficult to comprehend and process for approaching drivers. As proposed by Ogden and Newstead, the increased information that a driver is forced to contend with, the increased likelihood that incorrect judgements are made.

In the specific context of this research, the number of lanes and delineation are not specific to positive crossfall roundabouts. However, the complementary crossfall on the central island increases the probable travel speeds for roundabout vehicles increases.

As outlined in Section 1 of this dissertation, the intention of the roundabout is to minimise speed differential at conflict points. The two factors listed above contribute to increased vehicles speeds on the circulating carriageway. Conversely, approaching traffic is faced with reductions in decision-making time, increased difficulty of judging the rate of approach of circulating vehicles. This is compounded for following vehicles.



Figure 27 A positive crossfall roundabout at Sunshine Motorway ramps/Yandina-Coolum Road, Coolum Beach (Google, 2014)

Figure 27 depicts a positive crossfall roundabout with a view of the circulating carriageway. The critical difference is that the crossfall is complementary to vehicles on the circulating carriageway. The speeds attainable on this carriageway are significantly larger than negative crossfall equivalents.

A simple assessment of the point mass equation (refer to equation 2), as extracted from *Austroads: Guide to Road Design* allows the production of the graph in Figure 28.

Equation 2 Point mass equation for horizontal curves (Austroads, 2009)

$$e + f = \frac{V^2}{127R}$$

where :

e = crossfall (m / m)

f = side friction factor

V = speed (km / h)

R = curve radius (m)

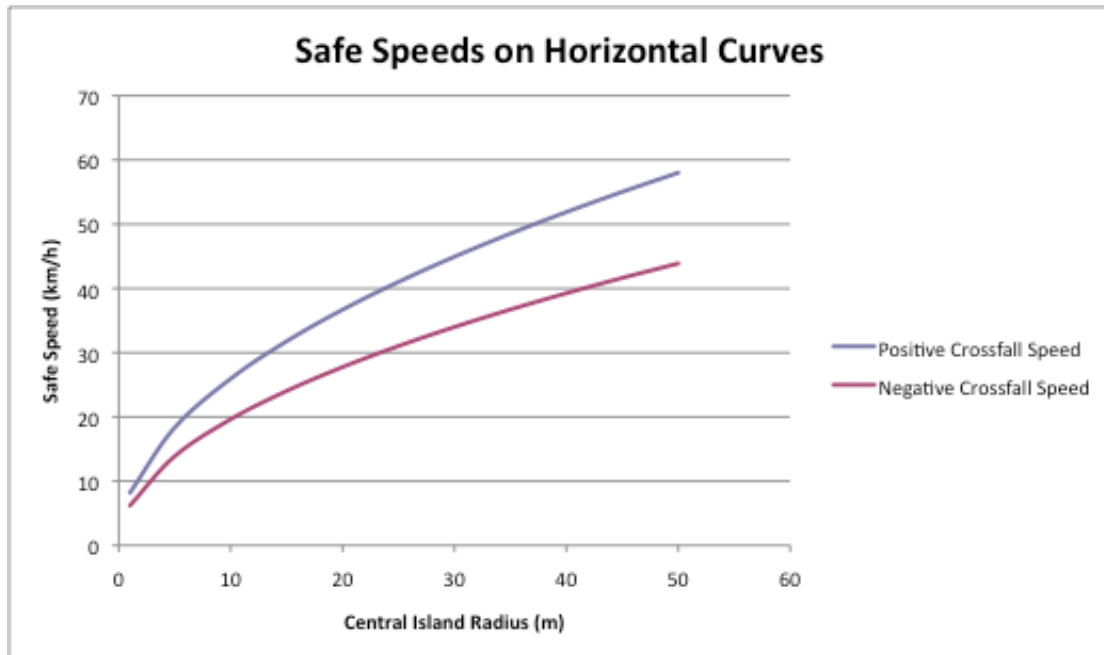


Figure 28 Safe speeds on horizontal curves

Figure 28 shows the discrepancy between safe speeds attainable on the circular carriageway when the crossfall varies between positive and negative. For the purpose of this assessment a side friction factor of 0.5 has been used. This is irrelevant as it is constant for both crossfall types.

The intention of Figure 28 is to highlight the positive correlation between safe speeds and the central island radius. This corresponds with the data discussed in Section 4. Higher speeds zones are overrepresented in approach rear end crashes.

There is a definite link between high-speed zones and positive crossfall roundabouts. Naturally, high-speed zones require increased deceleration and speed changes to avoid collision (Yan, 2005) however positive crossfall roundabouts in these zones are characterized by larger central island radii. Larger radii coupled with positive crossfall greatly increase the speed attainable on the circulating roundabout. Cars are most capable of exploiting the higher speeds and as shown in Figure 9, account for an extremely large proportion of the approach rear crashes. One could conclude the increased speed of circulating roundabout traffic results in reduced decision-making time for approach traffic and therefore presents increased hazard as vehicles brake at an increased or unpredictable rate to avoid collision.

The Austroads commentary that indicates that a sunken island is not as visible to following traffic is difficult to prove as a cause of approach rear end crashes. However, based on Figure 26 and Figure 27, the respective islands are always accompanied by a combination of signposting, road furniture, vegetation and approach islands. These elements are conspicuous in a road environment and would negate the potential lack of sight to the central island, in a similar fashion that traffic signals negate the lack of sight to stop lines at signalised intersections.

In summary, the speed zone and context of the roundabout plays a significant role in approach rear end crashes. The increased amount of approach rear end crashes observed in higher speed zones corresponded with positive crossfall roundabouts facilitating higher travel speeds reducing the capacity of approaching drivers to make timely, suitable decisions. Negative crossfall roundabouts do not afford circulating vehicles the ability to maintain higher

speeds and therefore do not shorten approach times between conflict points. The overrepresentation of approach rear end crashes at low speed, negative crossfall roundabouts is attributed to the greater number of these sites and their commonality.

5.2 Entry/Circulating Crashes

Entry/circulating crashes are the most common accident type at roundabout intersections, accounting for almost 40% of the recorded crashes. As outlined in Section 2, the entry speed of vehicles is considered the largest cause. Analysis of the 449 crashes that occurred at Queensland roundabouts in 2010 produced a two-thirds majority of crashes at negative crossfall sites.

Besides the majority occurring at negative crossfall roundabouts there are two significant factors that exhibit a larger role than a site's crossfall. The following overrepresentations confirm speeding and lack of approach sight distance as significant factors in entry/circulating crashes:

- Straight through movements were intended in 72% of the crashes
- Most crashes occurred at generally smaller sized roundabouts, as supported by the high contingency of low speed zone roundabouts.
- 96% of crashes occurred at roundabouts in 0-60km/h speed zones

These factors are consistent with creating a propensity to maintain speed through the roundabout. There are several justifications that support these findings:

- There is less deflection at smaller and lower speed zone roundabouts allowing drivers to maintain relatively straight alignments and therefore higher approach and departure speeds. The ability to maintain momentum of the vehicle is increased as deflection and changes in direction are minimised. Close reference to Figure 29 highlights the trafficked areas on the road pavement. The trafficked areas resemble 'racing lines' coinciding with apex of the straight through movements.
- There is significantly less approach sight distance at smaller and lower speed zone roundabouts reducing the imminence of other traffic. As

shown in Figure 26, the typical urbanised roundabout setting includes property development boundaries that are within a few metres of the roadway. This reduces the sight to oncoming traffic and increases the likelihood of crashes for risk taking driver behaviour.

- Straight through movements allow drivers to maintain momentum on approach since the lateral forces on the vehicle do not near those induced when turning. As a point of reference, vehicles performing turning movements and becoming involved in entry/circulating crashes were relatively underrepresented and evenly distributed across all speed zones and both crossfall types.
- There are significantly wider sight envelopes between approaching and circulating vehicles at higher speed roundabouts. The sight envelope allows additional time to avoid a collision by giving way. The higher speed zone roundabouts also include multiple, wider lanes. This additional area improves the chances of crash avoidance since drivers on the circulating carriageway are afforded the option of taking defensive or evasive manoeuvres in advance to avoid fast approaching vehicles or those which do not give way. The same benefits are not available in low speed, local road settings.



Figure 29 Aerial view of typical low speed zone roundabout. Roundabout at Robinson Road W/Kirby Road, Aspley. (Google, 2014)

There is an overrepresentation of roundabouts promoting faster, direct approaches coupled with the scarcity of positive crossfall equivalents in the same settings. This results in a numerical bias towards negative crossfall roundabouts and subsequent overrepresentation in entry/circulating crashes. Approach geometry design standards and requirements do not differ between the crossfall types. The pattern of results lends itself to speeding and roundabout approach design as the most significant causes. These findings coincide with the Arndt, Maycock and Hall and Austroads research examined in Section 2 of this dissertation. The effect of crossfall in entry/circulating crashes is not apparent in this study.

5.3 Single Vehicle Crashes

Single vehicle crashes are a broad category of crash however they result in a common outcome with the crashing vehicle leaving the road or colliding with an object. A single vehicle crash is usually preceded by a loss of control. The four primary causes are outlined in Section 2 of this dissertation.

The results collated for single vehicle crashes in Queensland, 2010 produced a two-thirds majority occurring at negative crossfall roundabouts. This result under represents the significance of positive crossfall in single vehicle crashes. The results indicated, similar to entry/circulating crashes, that the majority (96%) occurred in 0-60km/h speed zones. As discussed in Section 5.2, the nature of these roundabouts is significantly different to higher speed roundabouts.

The proportion of crashes at 60km/h zones was approximately equal between the crossfall types. However, 85% of the positive crossfall crashes occurred in this speed zone. Another 14% occurred in 0-50km/h range. The significant weighting of positive crossfall, single vehicle crashes at lower speed roundabouts proves its lack of suitability to these speed zones.

The similarity in crash totals is reflected by the similar nature of the roundabouts at lower speeds. There is little difference in the performance of the positive and negative crossfall at low speed roundabouts. Referring to Figure 28, positive crossfall roundabouts provide minimal speed advantage compared to an equivalent negative crossfall roundabout at low speeds. The difference in safe speeds lessens as the size of the roundabout is reduced. This proves at smaller sized roundabouts (coinciding with lower speed zones) there is little difference between the crossfall types.

Beyond 60km/h, there is a sudden reduction in single vehicle crashes on positive crossfall sites. This can be attributed to the higher safe speed thresholds when compared to negative crossfall sites. Negative crossfall sites accounted for 80% of all single vehicle crashes in speed zones above

60km/h. As shown in Figure 28, the difference in safe speed thresholds widens considerably as the size of the roundabout increases.

Two examples of roundabouts are shown below. Figure 30 depicts a negative crossfall roundabout at the Aquatic Centre Drive/Burpengary-Caboolture Road intersection, Burpengary. Figure 31 shows a positive crossfall roundabout at the intersection of Dawson Highway and Harvey Road, Clinton. Both roundabouts are located in 60km/h speed zones and contain a central island radius of 20 metres. The significant difference in the context of single vehicle crashes is the different travel speeds that traffic can safely sustain on the circulating carriageway. The roundabout at Burpengary provides a safe travel speed of approximately 27km/h whilst the roundabout at Clinton would allow speeds of approximately 37km/h on the circulating carriageway. This increased threshold is reflected in the reduction in single vehicle, higher speed zone crashes at positive crossfall roundabouts.



Figure 30 Aerial view of roundabout at Aquatic Centre Drive/Burpengary-Caboolture Road intersection, Burpengary (Google, 2014).

Near even distribution of crashes between crossfall types at lower speeds indicates that the primary cause of single vehicle crashes is not the crossfall on the circulating carriageway. Elements of these roundabouts are discussed in previous sections and demonstrate the confined nature and limitations with such roundabouts. Specifically, the lack of deflection, driver propensity to maintain speed and predominance of straight through movement involvement again leads one to conclude that speed is the overriding factor in single vehicle roundabout crashes at smaller roundabouts.

The smaller roundabouts, such as Figure 29, highlight the ease with which drivers can perform relatively minor, sudden direction changes to circumvent the island and continue through the roundabout. These movements are erratic, create sudden forces on the tyres and are proven by the 'racing lines' on the road pavement.



Figure 31 Aerial view of roundabout at Dawson Highway/Harvey Road intersection, Clinton (Google, 2014)

Wet road surfaces featured extensively in single vehicle crashes. At positive crossfall sites, 47% of crashes were affected by road surfaces and 32% for negative crossfall sites. The increased amount of crashes with wet road surface conditions indicates the sensitivity of the relationship with single vehicle crashes. The nature of the low speed zone roundabouts allow drivers to perform short, sudden turning movements to deflect pass the small central islands. This leads to friction capabilities being tested. With wet roads, this friction is reduced and results in losses of control. The presence of moisture accounted for a significant portion of single vehicle crashes.

More significant, was the proportion of involvement in positive crossfall crashes. Analytically, the reduction in friction affects the safe speeds in similar proportions and would not bias a particular crossfall. However, the results indicated the proportion of involvement in positive crossfall crashes was 47%, compared to 32% for negative crossfall. The major point of difference is the

need for positive crossfall roundabouts to channel water towards the central island. As shown in Figure 27, the central island includes kerbs and other drainage inlet points to allow the water to enter the central island drainage system.

The analysis of hydraulics is beyond the scope of this investigation although remains pertinent to these crash findings. In summary (Ghandour et al, 2010):

- The depth of flow is a significant factor in the available friction between tyres and a wet road
- Depth of flow increases as drainage flow path lengths increase.

Drivers tend to follow delineation provided and edge features (Austroads, 2009). In the instance of positive crossfall sites during wet weather, the guidance is along the centre island and littered with relatively deep water flows, pollutants from vehicles, litter and sediments that reduce friction at the tyre road interface (Ghandour et al, 2010).

Furthermore, Austroads recommends a one-metre width of flow guidance on road drainage in usually 10-year ARI storm events. The majority of roundabouts observed for analysis did not include island side shoulders, indicating that the width of flow requirements, even if satisfied would be up to one metre inside the travel lane. It is acknowledged that roundabout lane widths are wider than conventional traffic lanes due to turning requirements however, incremental increases in flow depth at the island result in proportionally larger increases in flow width due to the triangular channel flow cross section. This results in a maximised intrusion of water into trafficked areas of the circulating carriageway.

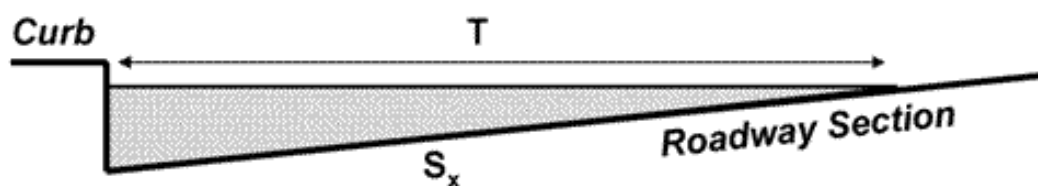


Figure 32 Triangular cross sectional flow at centre island kerbing on positive crossfall roundabouts (Federal Highway Administration, 2011).

Asset management practices and design guidelines would need to more sensitive to these operational issues.

With positive crossfall promoting these hydraulic issues, there is a strong justification for the larger proportion of single vehicle crashes at positive crossfall sites with wet road surfaces.

Assessment of crashes by vehicle type and intended movements indicated motorcycles and straight through movements were overrepresented. The involvement of motorcycles, mostly in dry road surface conditions indicates driver behaviour and tendency to utilise higher speed thresholds offered by a motorcycle. The Motorcycle Council of NSW acknowledges large overrepresentation of motorcycles in single vehicle crashes as most often a driver behaviour issue. Ghandour also found that the weight force on the tyre significantly affected the friction available at the tyre road interface. Negative crossfall roundabouts accounted for a larger amount of motorcycle crashes. This could be attributed to the increased relative lean angle on adverse crossfalls such as at negative crossfall roundabouts. This is reaffirmed by the significantly reduced amount of wet weather, motorcycle accidents on positive crossfall roundabouts.

The straight through movement is the fastest potential movement at a roundabout. This tendency to maintain momentum and speed overrides the crossfall used on circulating carriageways. However, turning movements

require drivers to slow, especially on smaller roundabouts. This is reflected by the relatively even distribution of single vehicle crashes for turning movements on both crossfall types.

In summary, there is a large proportion of single vehicle crashes in low speed zones and at smaller roundabouts. This result suggests that type of crossfall has a minor influence at low speed roundabouts with driver behaviour, speed and the design of the roundabout posing more significant road safety issues. With increased speed and roundabout sizing the application of positive crossfall complements the roundabout and forces generated by vehicles on the circulating carriageway. In the majority of higher speed zone applications positive crossfall roundabouts reduced single vehicle crashes, particularly for motorcycles. Positive crossfall fared worse in wet weather, with the design substantiating hydraulic issues at the central island.

5.4 Overturned Crashes

Overturned crashes were a minority occurrence at roundabouts. 1.5% of all roundabout crashes involved rollovers. The severity of rollover crashes is higher given the nature of the crash, potential for injury and recovery effort required. The results indicate negative crossfall roundabouts are more suitable at resisting overturned crashes since they accounted for 30% of all overturned crashes. This contradicts the theoretical benefits of positive crossfall on the circulating carriageway, particularly for resisting lateral forces on a vehicle since negative crossfall is adverse to the vehicle's turning movement on the circulating carriageway. 70% of overturned crashes occurred on positive crossfall roundabouts.

The turning movement of vehicles on a circulating carriageway is distinguished into three areas as outlined Section 1. They include the entry, circulating carriageway and exit of the roundabout. The transition between edge draining crossfall (found on all approaches) to positive crossfall on the circulating carriageway and subsequently reverting to edge draining crossfall for the exit generates multiple vehicle rotations and dynamic changes that do not occur on negative crossfall roundabouts. These rotations and changes in lateral slope of the road generate momentum and roll instability, which increases the likelihood of rollovers (ARRB, 1999).

The limitations in providing positive crossfall roundabouts at low speed zones were primarily outlined in Section 5.1. Negative crossfall roundabouts featured in the majority of overturned crashes at low speed (0-50km/h) roundabouts.

Rollover thresholds for light vehicles are relatively high, approximately 1.0g (UMTRI, 2000). The overrepresentation of light vehicles in this category of roundabouts is consistent with the composition of traffic. Low speed zone roundabouts are generally smaller and therefore trafficked by smaller vehicles. A smaller roundabout promotes higher lateral acceleration rates if taken at increased speeds.

Figure 33 highlights the different lateral accelerations achieved when performing turning movements at different speeds. The graph highlights the rapid increase in lateral acceleration achievable on smaller radii curves, such as low speed zone roundabouts.

On smaller roundabouts the lateral acceleration of a vehicle can increase markedly with speed changes of less than 10km/h. There is a sensitive relationship between speed and lateral acceleration at smaller roundabouts. As identified with single vehicle crash results, speeding driver behaviour at these smaller roundabouts accounts for the rollovers. The type of crossfall is inconsequential to such overriding factors.

As with the approach rear end crashes, a large amount of crashes were found to repeat at the same positive crossfall roundabouts. This result indicates sites issues associated with positive crossfall. The positive crossfall roundabouts identified accounted for 50% more crashes than number of sites whilst negative crossfall sites accounted for less than 8% more crashes than number of sites. One could suggest the results at negative crossfall sites, are more random and not linked to site issues. This would support the discussion above suggesting driver behaviour and speeds are the main cause, rather than a crossfall.

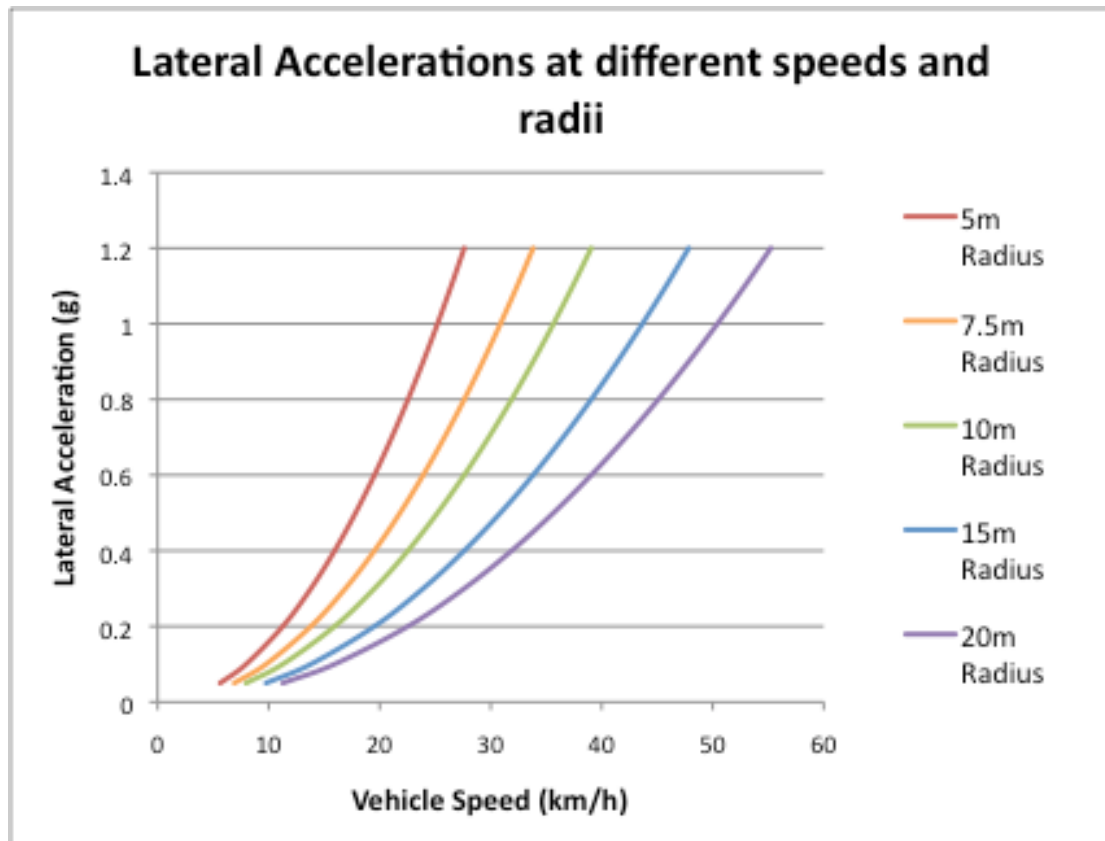


Figure 33 Lateral acceleration on curves

Positive crossfall roundabouts accounted for a large proportion of overturned crashes as the speed zone of the roundabout increased. Figure 33 highlights the proportional relationship between speed, lateral acceleration and radii. Increasing of the radii, as found on higher speed zone sites allows increased vehicle speeds. Additionally, Equation 1 highlighted the benefits of positive crossfall towards resisting rollover forces. Based on these two principles, rollover at larger, higher speed roundabouts with positive crossfall would require relatively higher speeds to overcome the compounding countermeasures of positive crossfall and a larger circulating carriageway.

This contradicts the findings, however, the effect of pavement rotation, necessitated by positive crossfall roundabouts, greatly varies the dynamic state of the vehicle. Sudden rotations result in increased tendencies for overturned crashes for vehicles travelling at higher speeds on larger radii,

positive crossfall roundabouts. The rotation of pavement is required to vary between positive and negative for the approach to circulating carriageway to exit sequence of travel. The movement of the vehicle along this path results in rotations that are not found on negative crossfall roundabouts. The rotations create roll instability as the lateral momentum of the vehicle shifts between opposing sides of the vehicle. In-depth mechanical analysis of this process is beyond the scope of this dissertation however; rollover is initiated when the vertical force on one side of the vehicle is zero. This is caused by the lateral force generating a moment that exceeds the weight force on one side of the vehicle; refer to Figure 34 for a diagram of these forces.

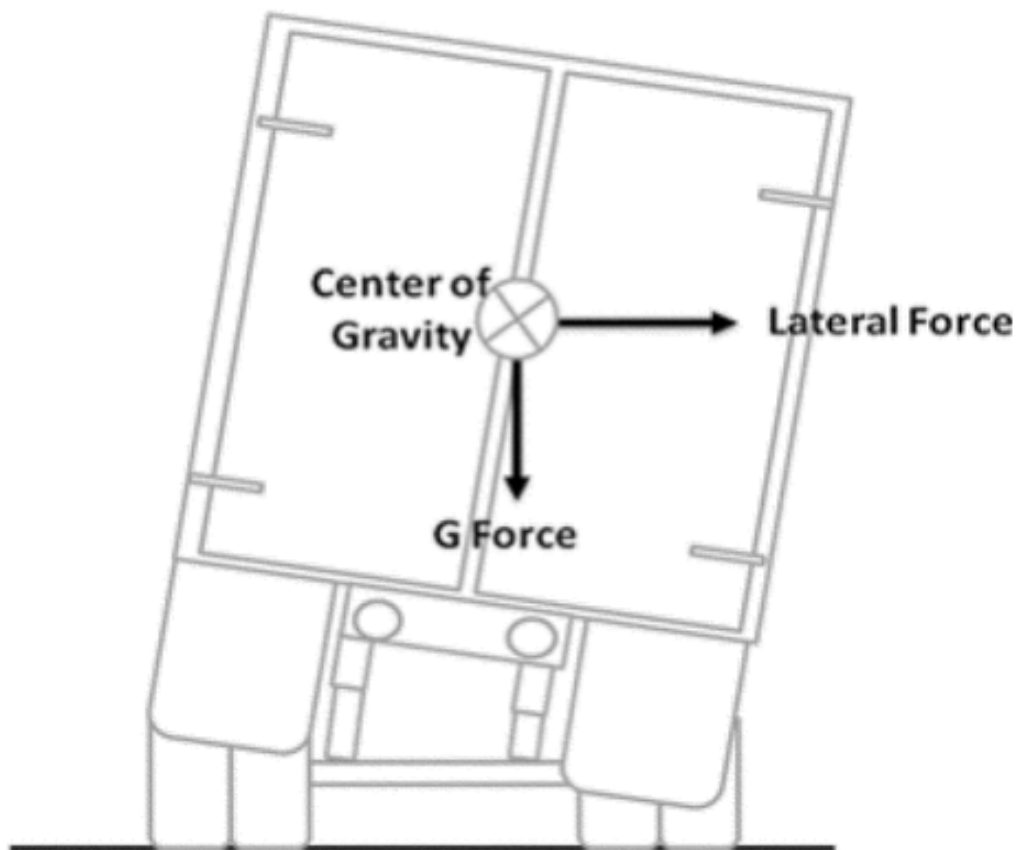


Figure 34 Vehicle rollover (LTSA, 2002)

Negative crossfall roundabouts present increased theoretical basis for promoting rollover however the pavement crossfall is self-explanatory and

consistent throughout the roundabout movement. This predictability allows a driver to 'feel' the lateral acceleration and make corrections. In the instance of positive crossfall, the pavement rotations are sudden and would initiate rollover prior to the driver being able to reduce their speed. Self-explaining road environments are key to many of the proposals in *Austroads: Guide to Road Design*.

The effect of positive crossfall at roundabouts is highlighted by the performance of heavy vehicles. In the analysis of the data, heavy vehicles accounted for 40% of overturned crashes. This is a significant proportion for a minority vehicle type. 75% of the heavy vehicle rollovers occurred on positive crossfall roundabouts, another significant overrepresentation and strong indication of the correlation between positive crossfall roundabouts, heavy vehicles and overturned crashes.

Another finding included the strong correlation between overturned crashes and wet roads. 33% of all rollovers occurred under these circumstances whilst 7% occurred on wet, negative crossfall roundabouts. On wet roads, this is almost a 5:1 overrepresentation of rollovers on positive crossfall roundabouts. The presence of wet roads reduces the available friction between a vehicle's tyres and the road pavement, using Equation 2, it is evident that safe speed threshold reduces with a reduction in friction. This would indicate that there is an increased likelihood of skidding or loss of control preceding rollover since vehicles would exceed the friction threshold prior to exceeding the lateral acceleration threshold.

The rotation of pavement, presence of traffic islands and varying pavement skid resistances would all positively contribute to maintaining a loss of control and 'tripping' the vehicle. The likelihood of rollover increases dramatically once the vehicle rotates perpendicular to the direction of travel (NHTSA, 1977). This is a common method of vehicle rollover and would account for the large proportion of overturned crashes, particularly at positive crossfall

roundabouts. The crash data obtained does not include extensive reporting of incident details to determine preceding events to the rollover of the vehicle.

In summary, rollovers at negative crossfall roundabouts were concentrated in the 0-50km/h speed zone. This is explained by the preference for local roads to adopt negative crossfall roundabouts in most instances. At speed zones of 60km/h and beyond, overturned crashes at positive crossfall roundabouts increased dramatically, despite increased island sizes and supportive crossfall. This contradiction of theory draws attention to the sequence of crossfall rotations through the roundabout movement sequence. Positive crossfall roundabouts have excessive pavement rotations that promote destabilizing forces. Consequently, heavy vehicles were overrepresented. Wet roads were also significantly represented at positive crossfall sites indicating that losses of friction precede rollover crashes.

6. Conclusion

The intention of this dissertation was to investigate the road safety effect of different crossfall at roundabouts.

The review of literature undertaken in Section 2 outlined the existing design guidelines for roundabouts in Australia. A difference in approaches was identified, as in positive and negative crossfall sites. These approaches provided different methods for the design of pavement crossfall at roundabouts, with both aiming to achieve similar objectives. This formed the basis for this dissertation.

A review of literature was extended to examine the benefits and expectations of the respective crossfalls. Little evidence on positive crossfall roundabouts was uncovered although a large amount of information was found regarding crossfall in general, its wider effect on the road and traffic. Literature was also examined on crash rates, proportions and the types of crashes at roundabouts.

Five major crashes types were identified and their relationship to crossfall presented. The evaluation of the road safety aspect of this dissertation stemmed from analysis of these crash types with respect to roundabouts and the type of crossfall.

The methodology employed in this process has been efficient and allowed a large range of data collection and processing to be completed. The results presented address the shortcomings that were identified in the review of existing literature in Section 2 of this dissertation.

Pertinent to the original aim of the dissertation, the following are valuable findings identified in this research.

- The type of crossfall at a roundabout is a significant factor for single vehicle crashes at roundabouts.

- Significant overrepresentation of overturned and approach rear end crashes at positive crossfall roundabouts in higher speed zones
- The use of positive crossfall was found to generally reduce the proportion of single vehicle crashes (excluding overturned crashes) occurring at positive crossfall roundabouts.
- Overturned crashes exhibited a strong correlation with positive crossfall roundabouts. The rotation of pavement required for travel through positive crossfall roundabouts may account for the higher proportion of overturned crashes
- A wet road lead to a relatively large increase in single vehicle crashes at positive crossfall roundabouts
- Heavy vehicles were distinctly overrepresented in overturned crashes at positive crossfall roundabouts
- Motorcycles were distinctly overrepresented in single vehicle crashes at negative crossfall roundabouts

Many secondary findings, which are not explicitly relevant to the aim of the dissertation, were realised:

- Lower speed roundabouts are ineffective in achieving common roundabout design and safety objectives
- Multiple vehicle crashes are more prevalent at lower speed, smaller roundabouts
- Local road authorities have not implemented many small, positive crossfall roundabouts due to the inherent difficulties and costs when compared to negative crossfall roundabouts.
- Wet weather had a low involvement rate in multiple vehicle crashes compared to single vehicle crashes

This research has resulted in the realisation of valuable outcomes. The results remain broad due to the scope and methodology limitations of this research. The following highlights limitations relevant to the research findings presented:

- The accuracy of accident information is unverifiable
- Crash reports with statements and written descriptions were not utilized in this analysis. They would have improved the value of the information and allowed more accurate categorization of data.
- Traffic volumes at the roundabouts have not been considered. The ability to compare traffic volumes would have allowed analysis and comparison of the relative rates of different crashes and occurrences between the different crossfall types.
- Economic cost of the crashes has not been considered to determine the implications of selecting a particular crossfall type.
- Crash severity was not considered in analysis of the road safety impacts.
- The marginal effects of variations in crossfall were not considered since each site was categorised by positive or negative crossfall only. Further distinction between numerical values of crossfall would improve justification of some findings, particular for overturned crashes.

These limitations illustrate the context with which this research has been conducted, the context with which it should be regarded and importantly, highlights opportunities for further improvement in future research undertakings in this area.

7. Recommendation

There is significant scope to develop the research presented in this dissertation into a series of future works. The original intention of evaluating the effects of crossfall at roundabouts should be maintained although refined and evaluated to greater depths. Many of these recommendations for future work stem from the aforementioned limitations attached to this dissertation.

Future works could include:

- Specific case studies to focus on higher speed zone, positive crossfall roundabouts and their crash performance. Extensive research could be undertaken on this, given the number of sites available in Queensland. Findings could be used to better inform designers' understanding on the situation to best apply or avoid positive crossfall roundabouts.
- Specific case studies, using detailed crash reports from Queensland Transport's Road Crash 2 system, which provides descriptions and written statements. Specific sites could also be surveyed to determine numerical values of crossfall relevant to crashes and crash types. This would analysis to consider the amount of crossfall present at crashes and potentially refine findings presented in this dissertation.
- Commissioning of specific traffic studies to examine the volume of roundabout traffic over a corresponding period of crash recording. This would allow costs, relative rates and proportions of crash types to be directly compared between positive and negative roundabouts.
- Consideration of road safety could be extended to include crash severity and associated economic costs. A comparison of positive and negative crossfall would outline the overall economic difference in road safety as a result of positive and negative crossfall.

The ultimate aim of this dissertation is ongoing and was undertaken to improve the knowledge regarding the application of crossfall at roundabouts, particularly positive crossfall. The lack of current knowledge regarding positive crossfall at roundabouts is apparent and the roundabout design guidelines and knowledge in Australia do not adequately make this lack of knowledge apparent. Further examination of the consequential effects of the application of crossfall is required to improve awareness of the implications of positive and negative crossfall at roundabouts.

8. References

Arndt, 1998. *Relationship between roundabout geometry and accident rates*. Queensland Department of Transport and Main Roads. Brisbane, Australia

Arndt, 2008, *Speed Control at Roundabouts-Use of maximum entry path radii*. 23rd ARRB Conference, Adelaide, Australia.

ARRB 1999. *Performance Based Standards for heavy vehicles in Australia Field of Performance Measures*. National Road Transport Commission. Melbourne, Australia

Austroads, 2009. *Austroads Guide to Road Design: Part 3 Geometric Design*. Austroads. Melbourne, Australia

Austroads, 2009. *Austroads Guide to Road Design: Part 4B Roundabouts*. Austroads. Melbourne, Australia

Bahouth, 2005. *Real world crash evaluation of vehicle stability control technology*. Association for the Advancement of Automotive Medicine. Available at: <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3217442/>. Accessed 7 September 2014.

Brusza, 2009. *Comparative performance of innovative quad-trailer combinations*. Queensland Transport and Main Roads, Brisbane, Australia.

Federal Highway Administration, 2000. *Roundabouts: An informational guide*. US Department of Transportation. Washington DC, USA.

Federal Highway Administration, 2011. *Introduction to highway hydraulics*. US Department of Transportation. Available at: <http://www.fhwa.dot.gov/engineering/hydraulics/pubs/08090/06.cfm>. Accessed 12 October 2014

Ghandour et al, 2010. *Tire/road friction coefficient estimation applied to road safety*. 18th Mediterranean Conference on Control & Automation, pp. 1485-1490. Marrakech, Morocco.

Inderscience, 2008. *Heavy trucks: Safety research identifies factors that lead to loss of control, accidents*. Science Daily. Available at: <http://www.sciencedaily.com/releases/2008/09/080901085724.htm>. Accessed 7 September 2014.

Institute of Transportation Engineers, 2008. *Enhancing intersection safety through roundabouts*. Washington DC, USA.

Land Transport Safety Authority, 2002. *Heavy Vehicle Stability Guide*. Land Transport Safety Authority. Wellington, New Zealand.

Maycock & Hall, 1984. *Accidents at four arm roundabouts*. Transport and Road Research Laboratory. Crowthorne, Berkshire, UK.

Milliken, P & de Pont, J. 2004. *The effect of cross-sectional geometry on heavy vehicle performance and safety*. Transfund New Zealand Research Report 263, pp. 46.

Myers, 2000. *Accident Reductions with roundabouts*. Maryland State Highway Administration. Baltimore, USA.

New Hampshire Department of Transportation, 2009. Roundabouts. Available: <http://www.nh.gov/dot/org/projectdevelopment/highwaydesign/roundabouts/>. Accessed 7 March 2014.

NHTSA, 1977. *Multidisciplinary accident investigation single vehicle accident study Volume II: Technical Report*. National Highway Traffic Safety Administration. Washington DC, USA.

Ogden, 1996. *Safer Roads: A Guide to Road Safety Engineering*, Avebury Technical, Great Britain.

Ogden & Newstead, 1994. *Analysis of crashes at Victorian Signalised Intersections*. Monash University, Melbourne, Victoria.

<http://www.monash.edu.au/miri/research/reports/muarc060.pdf>

Queensland Department of Main Roads, 2006. *Road Planning and Design Manual: Chapter 14 Roundabouts*. Brisbane, Australia

Robinson, 1998. *Accidents at Roundabouts in New South Wales*. Road and Transport Research Volume 7 No 1. University of New England, Armidale, Australia.

Smith, 2010. *Statistical validation of scientific models*. North Carolina State University. Available at:

http://www4.ncsu.edu/~rsmith/MA797V_S10/Lecture12.pdf. Accessed 14 September 2014

TERNZ, 2006. *SRT Calculator User Guide*. Department of Infrastructure, Energy & Resources. Manukau, New Zealand.

TERNZ, 2008. *Heavy Vehicle Stability –Tasmania*. Heavy Truck Safety Advisory Council. Hobart, Tasmania

Thomson & Karrazi, 2006. *Analysis of heavy truck accidents with regards to roll and yaw instability*. Chalmers University of Technology, Gothenburg, Sweden.

Turner & Wood, 2010. *Accident Prediction Modelling Down Under*. Beca Infrastructure. Available:

http://www.beca.com.au/services/~media/publications/technical_papers/accident_prediction_modelling_downunder.ashx. Accessed 17 September 2014.

University of Michigan Transportation Research Institute (UMTRI), 2000. *Rollover of heavy commercial vehicles*. University of Michigan, Ann Arbor, USA

Unknown, 2014. *Motor vehicle census Australia 2014*. Australian Bureau of Statistics. Available: <http://www.abs.gov.au/ausstats/abs@.nsf/mf/9309.0>. Accessed 19 September 2014.

Unknown, 2014. *Pulling up in time: Stopping Distances*. Available; <http://www.allianz.com.au/car-insurance/news/pulling-up-in-time-stopping-distances>. Accessed 9 September 2014.

Unknown, 2014. *Single vehicle crashes*. Motorcycle Council of NSW Inc. Available at: <http://roadsafety.mccofnsw.org.au/a/28.html>. Accessed 13 October 2014.

Waddell et al, 2009. *Trucks in roundabouts: Pitfalls in design and operations*. Institute of Transportation Engineers Journal, February 2009 Edition. Washington DC, USA.

Yan, 2005. *Characteristics of rear end accidents at signalised intersections using multiple logistic regression model*. Elsevier, Amsterdam, The Netherlands.

9. Appendix A: Project Specification

University of Southern Queensland
FACULTY OF ENGINEERING AND SURVEYING

ENG4111/4112 Research Project

PROJECT SPECIFICATION

- FOR: Vernon STANTON
- TOPIC: INVESTIGATION OF THE EFFECT OF POSITIVE AND
NEGATIVE CROSSFALLS ON ROAD SAFETY AT
ROUNABOUTS
- SUPERVISOR: Dr Soma Somasundaraswaran
- ENROLMENT: Semester One, 2014 – ENG4111
Semester Two, 2014 – ENG4112
- PROJECT AIM: Roundabouts are a common form of road intersection and are used to allow self-regulating flows of traffic. As part of a roundabout there are generally three critical geometric considerations, namely, approach geometry, the circular carriageway and the departure geometry. In many instances this geometry is compromised and designed to slow traffic. Consequently, the crossfall of a roundabout becomes an important design consideration. The crossfall must be design to allow a smooth transition and adequate drainage performance of the circular carriageway. There are two common approaches to roundabout crossfall in Australia, positive and negative crossfalls. This report will aim to investigate and analyse the road safety performance of existing roundabouts with these different crossfalls to evaluate the safety benefits each arrangement may offer.
- PROGRAMME: Issue B, 6th January 2014
1. Perform a literature review of published material to identify and analyse roundabout design standards used for positive and negative crossfall roundabouts in Australia.
 2. Identify the types of crashes and contributing factors to crashes at roundabouts
 3. Collect and analyse crash data at roundabouts to determine the type of crash. Identify the corresponding roundabouts and collect design information to allow analysis of each crash
 4. Perform analytical calculations using design standards to determine safe vehicular thresholds at roundabouts
 5. Analytically compare incidences at roundabouts with positive and negative crossfalls to determine whether crossfall contributes to crashes and if so, how the different crossfalls affect different vehicles and crash types.

- EXAMINER/CO-EXAMINER: _____

10. Appendix B: Approach Rear End Crash Data

Xfall	Ref Number	Severity	Year	Month	Day	Hour	Crash Nature	Crash Type	Latitude	Longitude	Street	Intersecting Street	Road Authority	Road Feature	Traffic Control	Crash Speed Limit	Road Surface	Conditions	Lighting	Horiz Alignment	Vert Alignment	Crash_DCA_Description
0	146555	Minor injury	2007	June	Tuesday	11	Rear-end	Multi-Vehicle	-27.08621255	152.9805821	Aerodrome Rd	Caboollure - Bribie Island Rd	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Wet	Raining	Daylight	Straight	Level	Veh'S Same Direction: Rear End
0	153797	Property damage only	2008	February	Tuesday	21	Rear-end	Multi-Vehicle	-27.08596637	152.9798601	Aerodrome Rd	Caboollure - Bribie Island Rd	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Wet	Clear	Darkness - Lighted	Straight	Level	Veh'S Same Direction: Rear End
0	3194	Medical treatment	2001	February	Wednesday	15	Rear-end	Multi-Vehicle	-23.87570696	151.2257616	Aerodrome Rd	Dawson Hwy	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
0	173450	Minor injury	2008	September	Friday	14	Rear-end	Multi-Vehicle	-27.38719336	153.1165153	Airport Dr	Alpinia Dr	Local	Intersection - Roundabout	No traffic control	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
0	25460	Medical treatment	2001	October	Tuesday	8	Rear-end	Multi-Vehicle	-27.39891317	153.1097375	Airport Dr	Correa St	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
0	106197	Medical treatment	2005	July	Thursday	11	Rear-end	Multi-Vehicle	-27.3993417	153.1094294	Airport Dr	Correa St	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
0	119545	Property damage only	2006	February	Thursday	11	Rear-end	Multi-Vehicle	-27.39904822	153.1094078	Airport Dr	Correa St	Local	Intersection - Roundabout	No traffic control	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
0	123517	Minor injury	2006	April	Tuesday	21	Rear-end	Multi-Vehicle	-27.39893412	153.1101776	Airport Dr	Correa St	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Darkness - Lighted	Straight	Level	Veh'S Same Direction: Rear End
0	179662	Medical treatment	2008	July	Monday	21	Rear-end	Multi-Vehicle	-27.39945814	153.1094743	Airport Dr	Correa St	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Darkness - Lighted	Straight	Level	Veh'S Same Direction: Rear End
0	87795	Minor injury	2004	November	Thursday	17	Rear-end	Multi-Vehicle	-27.38714034	153.1165826	Airport Dr	Dryandra Dr	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
0	95498	Medical treatment	2005	February	Thursday	18	Rear-end	Multi-Vehicle	-27.38717516	153.1165246	Airport Dr	Dryandra Rd	Local	Intersection - Roundabout	No traffic control	60 km/h	Sealed - Wet	Raining	Dawn/Dusk	Straight	Level	Veh'S Same Direction: Rear End
0	11832	Minor injury	2001	July	Thursday	13	Rear-end	Multi-Vehicle	-27.38667495	153.1163713	Airport Dr	Dryandra Rd	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Curved - view open	Level	Veh'S Same Direction: Rear End
0	23972	Minor injury	2002	February	Sunday	11	Rear-end	Multi-Vehicle	-27.41153139	153.0763577	Airport Dr	East - West Arterial Rd	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
0	54079	Medical treatment	2003	February	Wednesday	6	Rear-end	Multi-Vehicle	-27.41160981	153.0762371	Airport Dr	East - West Arterial Rd	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
0	134842	Property damage only	2007	March	Tuesday	10	Rear-end	Multi-Vehicle	-27.41239172	153.0779788	Airport Dr	East - West Arterial Rd	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
0	70695	Medical treatment	2003	December	Thursday	12	Rear-end	Multi-Vehicle	-27.41197108	153.0774206	Airport Dr	Gateway Arterial Rd	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
0	186826	Minor injury	2008	November	Friday	8	Rear-end	Multi-Vehicle	-27.41271958	153.0888205	Airport Dr	Lomandra Dr	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
0	54748	Property damage only	2003	June	Friday	8	Rear-end	Multi-Vehicle	-27.41233437	153.0886801	Airport Dr	Lomandra Dr	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
0	77135	Property damage only	2004	May	Thursday	20	Rear-end	Multi-Vehicle	-27.41235119	153.0886745	Airport Dr	Lomandra Dr	Local	Intersection - Roundabout	No traffic control	60 km/h	Sealed - Dry	Clear	Darkness - Lighted	Straight	Level	Veh'S Same Direction: Rear End
0	91983	Medical treatment	2004	November	Tuesday	13	Rear-end	Multi-Vehicle	-27.41284704	153.0885233	Airport Dr	Lomandra Dr	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
0	96360	Property damage only	2005	March	Sunday	18	Rear-end	Multi-Vehicle	-27.41283002	153.0888584	Airport Dr	Lomandra Dr	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
0	103774	Property damage only	2005	July	Tuesday	6	Rear-end	Multi-Vehicle	-27.41281595	153.0888492	Airport Dr	Lomandra Dr	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Curved - view open	Level	Veh'S Same Direction: Rear End
0	105094	Property damage only	2005	October	Tuesday	18	Rear-end	Multi-Vehicle	-27.41282663	153.0888514	Airport Dr	Lomandra Dr	Local	Intersection - Roundabout	No traffic control	60 km/h	Sealed - Dry	Clear	Darkness - Lighted	Straight	Level	Veh'S Same Direction: Rear End
0	179981	Medical treatment	2006	December	Friday	17	Rear-end	Multi-Vehicle	-27.41276999	153.0888287	Airport Dr	Lomandra Dr	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
0	29786	Property damage only	2002	May	Saturday	5	Rear-end	Multi-Vehicle	-27.41235728	153.0886675	Airport Dr	Lomandra Dr	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Wet	Raining	Darkness - Not lighted	Straight	Level	Veh'S Same Direction: Rear End
0	7377	Minor injury	2001	July	Monday	21	Rear-end	Multi-Vehicle	-27.41189291	153.0774985	Airport Dr	Southern Cross Wy Ramp Xd	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Darkness - Lighted	Straight	Grade	Veh'S Same Direction: Rear End
0	11578	Property damage only	2001	August	Thursday	8	Rear-end	Multi-Vehicle	-27.41129927	153.0773256	Airport Dr	Southern Cross Wy Ramp Xd	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
0	87499	Property damage only	2005	January	Saturday	16	Rear-end	Multi-Vehicle	-27.41177688	153.0778432	Airport Dr	Southern Cross Wy Ramp Xd	State	Intersection - Roundabout	No traffic control	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
0	2579	Minor injury	2001	March	Saturday	14	Rear-end	Multi-Vehicle	-27.41190447	153.0776593	Airport Dr	Southern Cross Wy Ramp Xe	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
0	4329	Medical treatment	2001	March	Thursday	14	Rear-end	Multi-Vehicle	-27.41197449	153.0773991	Airport Dr	Southern Cross Wy Ramp Xe	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
0	9679	Minor injury	2001	June	Sunday	19	Rear-end	Multi-Vehicle	-27.41194253	153.0774869	Airport Dr	Southern Cross Wy Ramp Xe	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Darkness - Lighted	Straight	Level	Veh'S Same Direction: Rear End
0	30136	Property damage only	2002	March	Monday	15	Rear-end	Multi-Vehicle	-27.41197971	153.0773948	Airport Dr	Southern Cross Wy Ramp Xe	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
0	44193	Property damage only	2003	January	Thursday	14	Rear-end	Multi-Vehicle	-27.41198045	153.0773837	Airport Dr	Southern Cross Wy Ramp Xe	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Curved - view open	Level	Veh'S Same Direction: Rear End
0	61802	Minor injury	2001	August	Thursday	8	Rear-end	Multi-Vehicle	-27.41196663	153.0774085	Airport Dr	Southern Cross Wy Ramp Xe	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
0	96154	Minor injury	2005	July	Wednesday	6	Rear-end	Multi-Vehicle	-27.41247043	153.0780345	Airport Dr	Southern Cross Wy Ramp Xe	State	Intersection - Roundabout	No traffic control	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
0	55366	Minor injury	2003	July	Wednesday	6	Rear-end	Multi-Vehicle	-28.01581501	153.3475423	Alexander Dr	Nielsens Rd	Local	Intersection - Roundabout	No traffic control	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
0	2586	Minor injury	2001	March	Monday	8	Rear-end	Multi-Vehicle	-23.35361199	150.5156194	Alexandra St	Main St	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
0	14211	Minor injury	2001	August	Friday	15	Rear-end	Multi-Vehicle	-23.35341863	150.5156217	Alexandra St	Main St	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
0	129512	Property damage only	2006	August	Wednesday	9	Rear-end	Multi-Vehicle	-16.90916742	145.7602101	Anderson St	Mcleod St	Local	Intersection - Roundabout	Give way sign	0 - 50 km/h	Sealed - Wet	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
0	12812	Minor injury	2001	August	Friday	18	Rear-end	Multi-Vehicle	-16.90917429	145.7601716	Anderson St	Mcleod St	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Dawn/Dusk	Straight	Level	Veh'S Same Direction: Rear End
0	86090	Property damage only	2004	October	Monday	9	Rear-end	Multi-Vehicle	-16.90884961	145.7600317	Anderson St	Mcleod St	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
0	140169	Medical treatment	2008	January	Tuesday	19	Rear-end	Multi-Vehicle	-16.90905662	145.7599006	Anderson St	Mcleod St	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Wet	Raining	Darkness - Lighted	Straight	Level	Veh'S Same Direction: Rear End
0	14176	Medical treatment	2001	July	Tuesday	7	Rear-end	Multi-Vehicle	-27.56293037	153.1996246	Avalon Rd	Redland Bay Rd	State	Intersection - Roundabout	Give way sign	80 - 90 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
0	79265	Property damage only	2004	June	Friday	8	Rear-end	Multi-Vehicle	-19.28692158	146.7437091	Bamford La	Garbutt - Upper Ross Rd	State	Intersection - Roundabout	Give way sign	70 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
0	123949	Property damage only	2006	May	Thursday	17	Rear-end	Multi-Vehicle	-19.28696423	146.7438409	Bamford La	Garbutt - Upper Ross Rd	State	Intersection - Roundabout	Give way sign	70 km/h	Sealed - Dry	Clear	Darkness - Lighted	Straight	Level	Veh'S Same Direction: Rear End
0	191526	Property damage only	2009	July	Wednesday	8	Rear-end	Multi-Vehicle	-19.28690806	146.7437085	Bamford La	Garbutt - Upper Ross Rd	State	Intersection - Roundabout	Give way sign	70 km/h	Sealed - Dry	Clear	Daylight	Curved - view open	Level	Veh'S Same Direction: Rear End
0	105575	Property damage only	2005	October	Tuesday	7	Rear-end	Multi-Vehicle	-19.27225365	146.7501772	Banfield Dr	Bayswater Rd	Local	Intersection - Roundabout	No traffic control	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
0	59824	Medical treatment	2003	September	Monday	16	Rear-end	Multi-Vehicle	-19.28532485	146.750295	Banfield Dr	Garbutt - Upper Ross Rd	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Curved - view open	Level	Veh'S Same Direction: Rear End
0	159499	Minor injury	2008	July	Monday	16	Rear-end	Multi-Vehicle	-19.28523573	146.7502445	Banfield Dr	Garbutt - Upper Ross Rd	State	Intersection - Roundabout	Give way sign	70 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
0	97842	Property damage only	2005	April	Tuesday	20	Rear-end	Multi-Vehicle	-19.28553198	146.7499829	Banfield Dr	Garbutt - Upper Ross Rd	State	Intersection - Roundabout	Give way sign	70 km/h	Sealed - Dry	Clear	Darkness - Lighted	Curved - view open	Grade	Veh'S Same Direction: Rear End
0	162019	Minor injury	2007	November	Thursday	14	Rear-end	Multi-Vehicle	-25.28735438	152.8311739	Beach Rd	Maryborough - Hervey Bay Rd	State	Intersection - Roundabout	No traffic control	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
0	52978	Medical treatment	2003	June	Wednesday	18	Rear-end	Multi-Vehicle	-25.28732759	152.8314781	Beach Rd	Maryborough - Hervey Bay Rd	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Wet	Clear	Darkness - Lighted	Straight	Level	Veh'S Same Direction: Rear End
0	59171	Hospitalisation	2003	July	Monday	16	Rear-end	Multi-Vehicle	-25.28334058	152.831659	Beach Rd	Old Maryborough Rd	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
0	179883	Property damage only	2010	May	Tuesday	18	Rear-end	Multi-Vehicle	-27.99003718	153.3998148	Benowa Rd	Cotlew St	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Wet	Clear	Darkness - Lighted	Straight	Level	Veh'S Same Direction: Rear End
0	198871	Hospitalisation	2009	March	Sunday	16	Rear-end	Multi-Vehicle	-27.566468	152.98025	Blunder Rd	Cunningham Art Rd Ramp Je	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Crest	Veh'S Same Direction: Rear End
0	54841	Minor injury	2003	June	Monday	17	Rear-end	Multi-Vehicle	-27.56682934	152.9801865	Blunder Rd	Cunningham Art Rd Serv Rd	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Dawn/Dusk	Straight	Level	Veh'S Same Direction: Rear End
0	100144	Medical treatment	2005	April	Tuesday	8	Rear-end	Multi-Vehicle	-27.56661805	152.9799207	Blunder Rd	Cunningham Art Rd Serv Rd	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Grade	Veh'S Same Direction: Rear End
0	96351	Medical treatment	2005	February	Monday	8	Rear-end	Multi-Vehicle	-27.56659385	152.9799327	Blunder Rd	Cunningham Art Rd Serv Rd	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Curved - view open	Crest	Veh'S Same Direction: Rear End
0	210988	Medical treatment	2010	October	Thursday	10	Rear-end	Multi-Vehicle	-27.56654581	152.9799233	Blunder Rd	Cunningham Art Rd Service Rd	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Curved - view obscured	Grade	Veh'S Same Direction: Rear End
0	16889	Medical treatment	2001	September	Tuesday	7	Rear-end	Multi-Vehicle	-27.59665034	152.9871515	Blunder Rd	Inala Ave	Local	Intersection - Roundabout	Give way sign	0 - 50 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
0	49772	Property damage only	2003	May	Thursday	16	Rear-end	Multi-Vehicle	-27.46519926	152.9880694	Boundary Rd	Hebe St	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Wet	Raining	Daylight	Curved - view open	Grade	Veh'S Same Direction: Rear End

0	101264	Minor injury	2005	June	Wednesday	15	Rear-end	Multi-Vehicle	-27.57775056	152.9455327	Cunningham Arterial Rd	Kelliher Rd	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Wet	Raining	Daylight	Straight	Grade	Veh'S Same Direction: Rear End
0	143731	Minor injury	2007	July	Saturday	16	Rear-end	Multi-Vehicle	-27.57782313	152.9456536	Cunningham Arterial Rd	Western Arterial Rd	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Curved - view open	Level	Veh'S Same Direction: Rear End
0	163013	Medical treatment	2007	February	Monday	8	Rear-end	Multi-Vehicle	-27.57778681	152.9457119	Cunningham Arterial Rd	Western Arterial Rd	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
0	165717	Property damage only	2008	April	Monday	14	Rear-end	Multi-Vehicle	-27.57774052	152.9455986	Cunningham Arterial Rd	Western Arterial Rd	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Curved - view open	Grade	Veh'S Same Direction: Rear End
0	185740	Medical treatment	2008	December	Tuesday	10	Rear-end	Multi-Vehicle	-27.57778357	152.9456099	Cunningham Arterial Rd	Western Arterial Rd	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Curved - view open	Level	Veh'S Same Direction: Rear End
0	9281	Medical treatment	2001	March	Monday	12	Rear-end	Multi-Vehicle	-27.08732649	152.9664655	D'Aguilar Hwy	Mewett St	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
0	171972	Property damage only	2009	January	Tuesday	16	Rear-end	Multi-Vehicle	-27.96807083	153.4129499	Davenport St	Nerang St	State	Intersection - Roundabout	Give way sign	0 - 50 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
0	130760	Medical treatment	2006	November	Wednesday	14	Rear-end	Multi-Vehicle	-27.96811575	153.4129824	Davenport St	Nerang St	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
0	134597	Minor injury	2006	October	Tuesday	15	Rear-end	Multi-Vehicle	-27.47825681	152.9828358	Dean St	Western Arterial Rd	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
0	60855	Medical treatment	2003	April	Tuesday	17	Rear-end	Multi-Vehicle	-27.41155778	153.0763254	East - West Arterial Rd	Gateway Arterial Rd	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
0	163289	Minor injury	2006	September	Sunday	6	Rear-end	Multi-Vehicle	-27.41255974	153.0766314	East - West Arterial Rd	Southern Cross Wy Ramp Xf	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Dawn/Dusk	Straight	Level	Veh'S Same Direction: Rear End
0	151969	Medical treatment	2007	June	Friday	13	Rear-end	Multi-Vehicle	-27.41257327	153.0766314	East - West Arterial Rd	Southern Cross Wy Ramp Xf	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
0	65218	Medical treatment	2003	August	Monday	9	Rear-end	Multi-Vehicle	-27.41152677	153.0763624	East - West Arterial Rd	Southern Cross Wy Ramp Xg	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
0	111401	Medical treatment	2006	January	Tuesday	13	Rear-end	Multi-Vehicle	-27.41173742	153.0766019	East - West Arterial Rd	Southern Cross Wy Ramp Xg	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
0	11797	Minor injury	2001	September	Sunday	13	Rear-end	Multi-Vehicle	-27.41160692	153.076255	East - West Arterial Rd	Southern Cross Wy Ramp Xg	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
0	25696	Medical treatment	2002	April	Tuesday	8	Rear-end	Multi-Vehicle	-27.41155321	153.0763346	East - West Arterial Rd	Southern Cross Wy Ramp Xg	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Curved - view open	Level	Veh'S Same Direction: Rear End
0	38091	Property damage only	2002	August	Wednesday	19	Rear-end	Multi-Vehicle	-27.41150134	153.0763658	East - West Arterial Rd	Southern Cross Wy Ramp Xg	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Darkness - Lighted	Straight	Level	Veh'S Same Direction: Rear End
0	46230	Minor injury	2001	June	Wednesday	14	Rear-end	Multi-Vehicle	-27.41155483	153.0763159	East - West Arterial Rd	Southern Cross Wy Ramp Xg	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
0	47499	Medical treatment	2003	February	Wednesday	16	Rear-end	Multi-Vehicle	-27.41160939	153.076345	East - West Arterial Rd	Southern Cross Wy Ramp Xg	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
0	50782	Minor injury	2003	July	Wednesday	6	Rear-end	Multi-Vehicle	-27.41152983	153.0763562	East - West Arterial Rd	Southern Cross Wy Ramp Xg	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
0	55807	Medical treatment	2003	January	Tuesday	14	Rear-end	Multi-Vehicle	-27.41155321	153.0763131	East - West Arterial Rd	Southern Cross Wy Ramp Xg	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
0	56619	Property damage only	2003	August	Monday	8	Rear-end	Multi-Vehicle	-27.41156256	153.0763033	East - West Arterial Rd	Southern Cross Wy Ramp Xg	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
0	86890	Minor injury	2004	November	Wednesday	14	Rear-end	Multi-Vehicle	-27.41176217	153.0766028	East - West Arterial Rd	Southern Cross Wy Ramp Xg	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
0	103927	Medical treatment	2005	August	Friday	6	Rear-end	Multi-Vehicle	-27.41193258	153.0764046	East - West Arterial Rd	Southern Cross Wy Ramp Xg	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
0	133998	Minor injury	2006	August	Thursday	16	Rear-end	Multi-Vehicle	-27.41180241	153.0764848	East - West Arterial Rd	Southern Cross Wy Ramp Xg	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
0	135030	Medical treatment	2007	February	Wednesday	14	Rear-end	Multi-Vehicle	-27.41181978	153.0764621	East - West Arterial Rd	Southern Cross Wy Ramp Xg	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Curved - view open	Level	Veh'S Same Direction: Rear End
0	122746	Medical treatment	2006	June	Sunday	9	Rear-end	Multi-Vehicle	-27.41177077	153.0766036	East - West Arterial Rd	Southern Cross Wy Ramp Xg	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Wet	Raining	Daylight	Curved - view open	Level	Veh'S Same Direction: Rear End
0	191501	Property damage only	2008	August	Saturday	15	Rear-end	Multi-Vehicle	-27.41182079	153.0765386	East - West Arterial Rd	Southern Cross Wy Ramp Xg	State	Intersection - Roundabout	Operating traffic lights	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
0	216799	Property damage only	2010	June	Monday	10	Rear-end	Multi-Vehicle	-27.73618199	153.2270739	Elderslie Rd	Pacific Hwy Off Ramp	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Curved - view open	Level	Veh'S Same Direction: Rear End
0	77120	Medical treatment	2004	March	Saturday	19	Rear-end	Multi-Vehicle	-27.37400433	153.0354463	Ellison Rd	Murphy Rd	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Darkness - Lighted	Straight	Level	Veh'S Same Direction: Rear End
0	135897	Medical treatment	2006	November	Friday	8	Rear-end	Multi-Vehicle	-27.37431383	153.0355512	Ellison Rd	Murphy Rd	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
0	191219	Hospitalisation	2009	April	Tuesday	16	Rear-end	Multi-Vehicle	-27.37417761	153.0353958	Ellison Rd	Murphy Rd	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
0	69932	Medical treatment	2004	January	Sunday	15	Rear-end	Multi-Vehicle	-27.42031529	152.9993581	Enoggera Tce	Pickering St	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
0	224471	Minor injury	2010	October	Tuesday	10	Rear-end	Multi-Vehicle	-27.85686809	153.3106587	Foxwell Rd	Pacific Hwy Off Ramp	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
0	79599	Medical treatment	2004	July	Thursday	9	Rear-end	Multi-Vehicle	-27.85725992	153.3101535	Foxwell Rd	Pacific Hwy Off Ramp	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
0	57726	Property damage only	2003	October	Saturday	11	Rear-end	Multi-Vehicle	-27.54545618	153.1206852	Gardner Rd	Redland Sub-Arterial Rd	State	Intersection - Roundabout	No traffic control	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
0	211859	Medical treatment	2010	September	Monday	16	Rear-end	Multi-Vehicle	-27.63324788	153.2609205	German Church Rd	Valley Way	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
0	219023	Property damage only	2010	November	Monday	15	Rear-end	Multi-Vehicle	-23.33503258	150.5346917	German St	Norman Rd	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
0	142778	Property damage only	2007	May	Wednesday	9	Rear-end	Multi-Vehicle	-21.1287383	149.1485541	Glenella Connection Rd	Maraju - Yakapari Rd	State	Intersection - Roundabout	Give way sign	80 - 90 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
0	190948	Medical treatment	2009	March	Thursday	16	Rear-end	Multi-Vehicle	-27.62782617	152.9672785	Grand Ave		Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
0	88072	Minor injury	2004	January	Thursday	18	Rear-end	Multi-Vehicle	-27.99669183	153.3395246	Grenfell St	Station St	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
0	107975	Medical treatment	2005	July	Friday	22	Rear-end	Multi-Vehicle	-27.46510913	152.9882908	Hebe St	Western Arterial Rd	Local	Intersection - Roundabout	No traffic control	0 - 50 km/h	Sealed - Wet	Raining	Darkness - Lighted	Curved - view open	Grade	Veh'S Same Direction: Rear End
0	143440	Medical treatment	2007	May	Tuesday	18	Rear-end	Multi-Vehicle	-27.46495184	152.9883768	Hebe St	Western Arterial Rd	State	Intersection - Roundabout	No traffic control	60 km/h	Sealed - Dry	Clear	Darkness - Lighted	Straight	Crest	Veh'S Same Direction: Rear End
0	43526	Medical treatment	2002	July	Saturday	14	Rear-end	Multi-Vehicle	-27.95955669	153.4084203	High St	Scarborough St N	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
0	71867	Medical treatment	2004	April	Wednesday	9	Rear-end	Multi-Vehicle	-27.95933278	153.4085424	High St	Scarborough St N	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
0	25454	Medical treatment	2001	October	Tuesday	13	Rear-end	Multi-Vehicle	-27.96267702	153.4076744	High St	Smith St Connection Rd	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
0	27740	Minor injury	2002	June	Thursday	22	Rear-end	Multi-Vehicle	-27.96253515	153.4081021	High St	Smith St Connection Rd	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Darkness - Lighted	Straight	Level	Veh'S Same Direction: Rear End
0	52948	Medical treatment	2003	February	Thursday	16	Rear-end	Multi-Vehicle	-27.96265839	153.4076851	High St	Smith St Connection Rd	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
0	107388	Minor injury	2005	September	Friday	21	Rear-end	Multi-Vehicle	-27.96251014	153.4077531	High St	Smith St Connection Rd	State	Intersection - Roundabout	No traffic control	60 km/h	Sealed - Wet	Raining	Darkness - Lighted	Straight	Level	Veh'S Same Direction: Rear End
0	93985	Medical treatment	2005	February	Saturday	22	Rear-end	Multi-Vehicle	-27.9624243	153.4080827	High St	Smith St Connection Rd	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Darkness - Lighted	Straight	Level	Veh'S Same Direction: Rear End
0	226427	Medical treatment	2010	December	Tuesday	15	Rear-end	Multi-Vehicle	-27.58790268	153.3040965	Holz St	Victoria Point Rd	State	Intersection - Roundabout	Give way sign	0 - 50 km/h	Sealed - Wet	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
0	110669	Minor injury	2006	January	Sunday	17	Rear-end	Multi-Vehicle	-12.64004206	141.8656955	John Evans Dr	Kerr Point Dr	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
0	106406	Property damage only	2005	November	Wednesday	13	Rear-end	Multi-Vehicle	-27.57772593	152.9455948	Kelliher Rd	Western Arterial Rd	Local	Intersection - Roundabout	No traffic control	60 km/h	Sealed - Dry	Clear	Daylight	Curved - view open	Level	Veh'S Same Direction: Rear End
0	190024	Property damage only	2009	June	Tuesday	10	Rear-end	Multi-Vehicle	-27.59440501	153.0050827	Leary Rd	Sherbrooke Rd	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
0	2144	Medical treatment	2001	January	Thursday	9	Rear-end	Multi-Vehicle	-27.5944145	153.0051124	Leary Rd	Sherbrooke Rd	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
0	72549	Minor injury	2003	December	Tuesday	10	Rear-end	Multi-Vehicle	-27.64413018	153.1447406	Loganlea Rd	Pacific Hwy Service Rd	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
0	30008	Medical treatment	2002	March	Friday	11	Rear-end	Multi-Vehicle	-21.13826679	149.1804493	Mangrove Rd	River St	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
0	76085	Minor injury	2004	August	Monday	14	Rear-end	Multi-Vehicle	-27.47481014	153.1452791	Manly Rd	Wondall Rd	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
0	81365	Hospitalisation	2004	September	Thursday	8	Rear-end	Multi-Vehicle	-27.47479809	153.1452654	Manly Rd	Wondall Rd	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
0	86914	Property damage only	2004	November	Friday	21	Rear-end	Multi-Vehicle	-27.47466613	153.1449119	Manly Rd	Wondall Rd	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Wet	Clear	Darkness - Lighted	Straight	Level	Veh'S Same Direction: Rear End
0	20189	Property damage only	2001	September	Saturday	21	Rear-end	Multi-Vehicle	-27.47480748	153.1452532	Manly Rd	Wondall Rd	Local	Intersection - Roundabout	Give way sign	70 km/h	Sealed - Wet	Raining	Darkness - Lighted	Straight	Grade	Veh'S Same Direction: Rear End
0	68978	Medical treatment	2003	December	Tuesday	16	Rear-end															

0	14720	Property damage only	2001	September	Monday	11	Rear-end	Multi-Vehicle	-19.26707547	146.7485426	Mather St	Woolcock St	State	Intersection - Roundabout	Give way sign	80 - 90 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
0	130319	Property damage only	2006	August	Wednesday	7	Rear-end	Multi-Vehicle	-27.50352866	153.0883571	Mcgahan St	Winstanley St	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
0	126329	Hospitalisation	2006	August	Tuesday	10	Rear-end	Multi-Vehicle	-27.59759838	152.9626459	Mira St	Poinsettia St	Local	Intersection - Roundabout	Operating traffic lights	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Grade	Veh'S Same Direction: Rear End
0	77013	Hospitalisation	2004	July	Friday	13	Rear-end	Multi-Vehicle	-27.44996466	153.0414291	Montpelier Rd	Wickham St	Local	Intersection - Roundabout	No traffic control	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
0	134923	Medical treatment	2006	December	Thursday	14	Rear-end	Multi-Vehicle	-20.72644187	139.4930534	Mt Isa - Duchess Rd	Rodeo Dr	State	Intersection - Roundabout	Give way sign	0 - 50 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
0	210107	Hospitalisation	2011	February	Thursday	7	Rear-end	Multi-Vehicle	-27.56299234	153.199646	Ney Rd	Redland Bay Rd	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Wet	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
0	226170	Medical treatment	2010	September	Friday	16	Rear-end	Multi-Vehicle	-27.56235933	153.199293	Ney Rd	Redland Bay Rd	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Curved - view open	Level	Veh'S Same Direction: Rear End
0	157971	Medical treatment	2007	July	Friday	10	Rear-end	Multi-Vehicle	0	0	Nineth Ave	The Boulevard	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
0	186067	Medical treatment	2009	August	Wednesday	17	Rear-end	Multi-Vehicle	-27.57506294	153.0874411	Padstow Rd	Warrigal Rd	Local	Intersection - Roundabout	No traffic control	60 km/h	Sealed - Dry	Clear	Darkness - Lighted	Straight	Level	Veh'S Same Direction: Rear End
0	200756	Medical treatment	2009	July	Friday	14	Rear-end	Multi-Vehicle	-27.57532796	153.0876819	Padstow Rd	Warrigal Rd	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
0	194944	Hospitalisation	2009	April	Friday	11	Rear-end	Multi-Vehicle	-27.42973845	153.1647001	Petersen St	Tingal Rd	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Dip	Veh'S Same Direction: Rear End
0	79691	Medical treatment	2006	March	Monday	10	Rear-end	Multi-Vehicle	-27.42028156	152.9993719	Pickering St	South Pine Rd	Local	Intersection - Roundabout	No traffic control	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
0	101006	Minor injury	2005	April	Saturday	8	Rear-end	Multi-Vehicle	-27.41994101	152.9991873	Pickering St	South Pine Rd	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
0	95962	Property damage only	2005	March	Thursday	11	Rear-end	Multi-Vehicle	-27.59748223	152.9627717	Poinsettia St	Tamarind St	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
0	148235	Medical treatment	2007	July	Thursday	8	4	Multi-Vehicle	-27.46706321	152.9877237	Rainworth Rd	Western Arterial Rd	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
0	103267	Medical treatment	2005	July	Thursday	14	Rear-end	Multi-Vehicle	-27.42030806	152.9993645	Raymont Rd	South Pine Rd	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
0	141308	Medical treatment	2006	August	Monday	15	Rear-end	Multi-Vehicle	-27.97029932	153.415046	Scarborough St S	Short St	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
0	16919	Minor injury	2001	July	Monday	9	Rear-end	Multi-Vehicle	-27.58444657	153.2964976	School Rd	Victoria Point Rd	State	Intersection - Roundabout	Give way sign	0 - 50 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
0	221838	Minor injury	2010	December	Thursday	15	Rear-end	Multi-Vehicle	-27.58433072	153.2964686	School Rd	Victoria Point Rd	State	Intersection - Roundabout	Give way sign	0 - 50 km/h	Sealed - Wet	Raining	Daylight	Straight	Level	Veh'S Same Direction: Rear End
0	127463	Medical treatment	2005	September	Sunday	12	Rear-end	Multi-Vehicle	-27.41179813	153.0764832	Southern Cross Wy Ramp Xg	Gateway Arterial Rd	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
0	10399	Minor injury	2001	June	Monday	16	Rear-end	Multi-Vehicle	-27.05640592	153.155385	Sunderland Dr	Verdoni St	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Wet	Raining	Daylight	Straight	Level	Veh'S Same Direction: Rear End
0	202895	Medical treatment	2010	October	Sunday	12	Rear-end	Multi-Vehicle	-27.05367626	153.1562085	Sunderland Dr		Local	Intersection - Roundabout	Give way sign	70 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
0	153690	Minor injury	2007	August	Saturday	12	Rear-end	Multi-Vehicle	-26.67251117	153.0934335	Sunshine Mwy Ramp H	Wises Rd	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Curved - view open	Level	Veh'S Same Direction: Rear End
0	66457	Minor injury	2003	October	Thursday	11	Rear-end	Multi-Vehicle	-27.38165371	153.0637022	Toombul Rd	Whitfield St	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Grade	Veh'S Same Direction: Rear End
0	149578	Minor injury	2007	April	Tuesday	16	Rear-end	Multi-Vehicle	-27.38027687	153.0636884	Whitfield St	Whitfield St Roundabout	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
0	178851	Medical treatment	2008	May	Wednesday	13	Rear-end	Multi-Vehicle	-27.38024035	153.0636668	Whitfield St	Whitfield St Roundabout	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
0	198943	Minor injury	2009	August	Monday	7	Rear-end	Multi-Vehicle	-27.38038471	153.0637623	Whitfield St Roundabout	Whitfield St Roundabout	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Curved - view open	Level	Veh'S Same Direction: Rear End
1	175961	Medical treatment	2008	June	Friday	23	Rear-end	Multi-Vehicle	-27.92829924	153.3609937	A B Paterson Dr	Arundel Dr	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Darkness - Lighted	Straight	Level	Veh'S Same Direction: Rear End
1	122953	Medical treatment	2006	March	Monday	10	Rear-end	Multi-Vehicle	-19.27811435	146.8023507	Ackers St	Marks St	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Wet	Raining	Daylight	Straight	Level	Veh'S Same Direction: Rear End
1	99422	Minor injury	2005	May	Wednesday	10	Rear-end	Multi-Vehicle	-27.6335417	152.9222202	Addison Rd	Ishmael Rd	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
1	182873	Medical treatment	2008	April	Saturday	11	Rear-end	Multi-Vehicle	-27.63366914	152.9226242	Addison Rd	Ishmael Rd	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
1	159316	Medical treatment	2006	December	Tuesday	8	Rear-end	Multi-Vehicle	-27.63367672	152.9226247	Addison Rd	Ishmael Rd	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Wet	Raining	Daylight	Straight	Level	Veh'S Same Direction: Rear End
1	176665	Hospitalisation	2008	May	Thursday	17	Rear-end	Multi-Vehicle	-16.99876909	145.7346157	Adonis St	Hardy Rd	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Dawn/Dusk	Straight	Level	Veh'S Same Direction: Rear End
1	109777	Minor injury	2005	October	Friday	16	Rear-end	Multi-Vehicle	-16.52562234	145.465243	Agincourt St	Port Douglas Rd	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
1	90008	Medical treatment	2004	December	Thursday	16	Rear-end	Multi-Vehicle	-27.58541817	151.9536573	Alderley St	Hume St	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
1	104240	Property damage only	2005	July	Friday	17	Rear-end	Multi-Vehicle	-27.58537038	151.9535664	Alderley St	Hume St	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Dawn/Dusk	Straight	Grade	Veh'S Same Direction: Rear End

1	175515	Medical treatment	2008	November	Thursday	8	Rear-end	Multi-Vehicle	-27.58776126	151.9709936	Alderley St	Mackenzie St	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
1	87173	Medical treatment	2004	November	Wednesday	15	Rear-end	Multi-Vehicle	-27.50543977	153.1015481	Aldford St	Winstanley St	Local	Intersection - Roundabout	No traffic control	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Grade	Veh'S Same Direction: Rear End
1	217499	Hospitalisation	2010	August	Saturday	16	Rear-end	Multi-Vehicle	-21.14576594	149.1890446	Alfred St	Carlyle St	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
1	99711	Medical treatment	2005	June	Wednesday	9	Rear-end	Multi-Vehicle	-27.49200691	152.9867145	Alpha St	Whitmore St	Local	Intersection - Roundabout	Give way sign	0 - 50 km/h	Sealed - Dry	Clear	Daylight	Straight	Grade	Veh'S Same Direction: Rear End
1	128098	Medical treatment	2006	March	Monday	17	Rear-end	Multi-Vehicle	-27.53254833	152.9480688	Amazons Pl	Sinnamon Rd	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
1	186263	Hospitalisation	2010	September	Thursday	6	Rear-end	Multi-Vehicle	-21.09736594	149.1896071	Andergrove Rd	Oak St	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Wet	Raining	Daylight	Curved - view obscured	Level	Veh'S Same Direction: Rear End
1	6256	Property damage only	2001	April	Tuesday	16	Rear-end	Multi-Vehicle	-16.91717878	145.7414971	Anderson St	Pease St	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
1	124028	Medical treatment	2006	March	Wednesday	7	Rear-end	Multi-Vehicle	-16.91727939	145.7414198	Anderson St	Pease St	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Curved - view open	Level	Veh'S Same Direction: Rear End
1	131298	Hospitalisation	2006	August	Friday	8	Rear-end	Multi-Vehicle	-16.91734216	145.7413813	Anderson St	Pease St	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
1	198423	Medical treatment	2009	October	Friday	15	Rear-end	Multi-Vehicle	-16.91718857	145.7419881	Anderson St	Pease St	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
1	131120	Hospitalisation	2006	September	Monday	9	Rear-end	Multi-Vehicle	-19.28854508	146.7510827	Angus Ave	Fulham Rd	Local	Intersection - Roundabout	Give way sign	0 - 50 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
1	146721	Medical treatment	2007	February	Tuesday	12	Rear-end	Multi-Vehicle	-27.24590687	152.9919457	Ann St	Old Gympie Rd	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
1	94866	Minor injury	2005	January	Friday	22	Rear-end	Multi-Vehicle	-27.56240548	151.9324855	Anzac Ave	Holberton St	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Darkness - Lighted	Straight	Level	Veh'S Same Direction: Rear End
1	104660	Property damage only	2005	July	Monday	15	Rear-end	Multi-Vehicle	-27.55782422	151.9436459	Anzac Ave	West St	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
1	111187	Medical treatment	2005	November	Thursday	10	Rear-end	Multi-Vehicle	-27.40091309	153.0094864	Appleby Rd	Jarvis St	Local	Intersection - Roundabout	No traffic control	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
1	78356	Medical treatment	2004	June	Tuesday	15	Rear-end	Multi-Vehicle	-27.40094413	153.0094815	Appleby Rd	Wilgarning St	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Grade	Veh'S Same Direction: Rear End
1	48440	Minor injury	2003	March	Friday	16	Rear-end	Multi-Vehicle	-27.40083268	153.009579	Appleby Rd	Wilgarning St	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Wet	Raining	Daylight	Straight	Level	Veh'S Same Direction: Rear End
1	108619	Medical treatment	2005	May	Saturday	17	Rear-end	Multi-Vehicle	-27.13905624	152.9709259	Aquatic Centre Dr	Burpengary - Caboolture Rd	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Dawn/Dusk	Curved - view open	Level	Veh'S Same Direction: Rear End
1	185840	Property damage only	2009	July	Tuesday	5	Rear-end	Multi-Vehicle	-27.13909516	152.9709419	Aquatic Centre Dr	Burpengary - Caboolture Rd	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Dawn/Dusk	Straight	Level	Veh'S Same Direction: Rear End
1	215983	Property damage only	2010	July	Thursday	13	Rear-end	Multi-Vehicle	-23.35749257	150.5191929	Aquatic Pl	High St	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Wet	Raining	Daylight	Straight	Level	Veh'S Same Direction: Rear End
1	215926	Property damage only	2010	July	Sunday	17	Rear-end	Multi-Vehicle	-23.38272255	150.4983393	Archer St	Canning St	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
1	237022	Property damage only	2010	December	Tuesday	15	Rear-end	Multi-Vehicle	-23.38272155	150.4983373	Archer St	Canning St	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
1	92329	Minor injury	2004	December	Monday	16	Rear-end	Multi-Vehicle	-21.16779361	149.1614578	Archibald St	Connors Rd	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
1	129577	Medical treatment	2004	November	Tuesday	13	Rear-end	Multi-Vehicle	-21.16766163	149.1616111	Archibald St	Paradise St	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
1	116473	Medical treatment	2006	February	Wednesday	15	Rear-end	Multi-Vehicle	-23.12980296	150.7425967	Arthur St	Queen St	Local	Intersection - Roundabout	No traffic control	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
1	178043	Minor injury	2008	May	Friday	15	Rear-end	Multi-Vehicle	-23.12983432	150.7427373	Arthur St	Queen St	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
1	124096	Medical treatment	2006	May	Tuesday	15	Rear-end	Multi-Vehicle	-27.94485193	153.3630342	Arundel Dr	Napper Rd	Local	Intersection - Roundabout	Give way sign	0 - 50 km/h	Sealed - Dry	Clear	Daylight	Straight	Grade	Veh'S Same Direction: Rear End
1	75567	Property damage only	2004	April	Friday	18	Rear-end	Multi-Vehicle	-27.65427518	152.7512194	Ash St	Deebing Ck Rd	Local	Intersection - Roundabout	No traffic control	60 km/h	Sealed - Dry	Clear	Darkness - Lighted	Straight	Level	Veh'S Same Direction: Rear End
1	37728	Property damage only	2002	August	Monday	15	Rear-end	Multi-Vehicle	-27.65497981	152.7605764	Ash St	Jacana Cres	Local	Intersection - Roundabout	Give way sign	0 - 50 km/h	Sealed - Dry	Clear	Daylight	Straight	Grade	Veh'S Same Direction: Rear End
1	227923	Minor injury	2010	April	Friday	17	Rear-end	Multi-Vehicle	-27.99924531	153.3784132	Ashmore Rd	Labrador - Carrara Rd	State	Intersection - Roundabout	Give way sign	0 - 50 km/h	Sealed - Dry	Clear	Dawn/Dusk	Straight	Level	Veh'S Same Direction: Rear End
1	38183	Property damage only	2002	August	Friday	22	Rear-end	Multi-Vehicle	-27.99908032	153.3786409	Ashmore Rd	Labrador - Carrara Rd	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Darkness - Lighted	Straight	Grade	Veh'S Same Direction: Rear End
1	44566	Property damage only	2002	December	Saturday	23	Rear-end	Multi-Vehicle	-27.99915067	153.3786305	Ashmore Rd	Labrador - Carrara Rd	State	Intersection - Roundabout	No traffic control	60 km/h	Sealed - Dry	Clear	Darkness - Lighted	Straight	Level	Veh'S Same Direction: Rear End
1	69546	Minor injury	2004	April	Thursday	21	Rear-end	Multi-Vehicle	-27.99916052	153.3786526	Ashmore Rd	Labrador - Carrara Rd	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Darkness - Lighted	Straight	Grade	Veh'S Same Direction: Rear End
1	2768	Medical treatment	2001	February	Monday	13	Rear-end	Multi-Vehicle	-27.99910475	153.3784913	Ashmore Rd	Labrador - Carrara Rd	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Wet	Raining	Daylight	Straight	Dip	Veh'S Same Direction: Rear End
1	112077	Minor injury	2005	November	Sunday	11	Rear-end	Multi-Vehicle	-27.99897271	153.3787006	Ashmore Rd	Labrador - Carrara Rd	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End

1	122988	Minor injury	2006 February	Sunday	15	Rear-end	Multi-Vehicle	-27.99920469	153.3787989	Ashmore Rd	Labrador - Carrara Rd	State	Intersection - Roundabout	Give way sign	70 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
1	80093	Medical treatment	2003 July	Tuesday	19	Rear-end	Multi-Vehicle	-27.56111572	152.9569192	Ashridge Rd	Cardiff Rd	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Darkness - Lighted	Straight	Grade	Veh'S Same Direction: Rear End
1	178569	Minor injury	2008 December	Wednesday	6	Rear-end	Multi-Vehicle	-27.52908492	152.9101937	Bainbridge Dr	Mccasill Rd	Local	Intersection - Roundabout	Give way sign	0 - 50 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
1	102316	Medical treatment	2005 April	Friday	14	Rear-end	Multi-Vehicle	-16.94462161	145.7322779	Balaclava Rd	Gordon St	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
1	151801	Minor injury	2007 September	Friday	6	Rear-end	Multi-Vehicle	-27.32258681	153.0097164	Bald Hills Rd	Gympie Rd	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
1	207684	Minor injury	2010 November	Monday	17	Rear-end	Multi-Vehicle	-27.32276284	153.0098598	Bald Hills Rd	Gympie Rd	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
1	157583	Medical treatment	2007 November	Friday	9	Rear-end	Multi-Vehicle	-27.5920723	151.970198	Ballin Dr	Mackenzie St	Local	Intersection - Roundabout	No traffic control	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Grade	Veh'S Same Direction: Rear End
1	187192	Medical treatment	2010 May	Wednesday	14	Rear-end	Multi-Vehicle	-19.30459527	146.7407218	Bamford La	Charles St	Local	Intersection - Roundabout	Give way sign	0 - 50 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
1	65512	Hospitalisation	2004 January	Tuesday	17	Rear-end	Multi-Vehicle	-19.30469843	146.7408369	Bamford La	Charles St	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
1	125563	Medical treatment	2006 July	Monday	12	Rear-end	Multi-Vehicle	-19.30474569	146.7407183	Bamford La	Charles St	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
1	121830	Medical treatment	2006 April	Sunday	15	Rear-end	Multi-Vehicle	-19.29394775	146.7431228	Bamford La	Mill Dr	Local	Intersection - Roundabout	Pedestrian crossing sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
1	209158	Medical treatment	2009 September	Friday	10	Rear-end	Multi-Vehicle	-19.29355127	146.743168	Bamford La	Mill Dr	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
1	17284	Property damage only	2001 October	Saturday	6	Rear-end	Multi-Vehicle	-19.28541039	146.7504224	Banfield Dr	Dalrymple Rd	State	Intersection - Roundabout	Give way sign	70 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
1	189515	Medical treatment	2009 February	Friday	8	Rear-end	Multi-Vehicle	-27.18047461	152.9461707	Banyan St	New Settlement Rd	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Wet	Raining	Daylight	Straight	Level	Veh'S Same Direction: Rear End
1	235902	Minor injury	2010 May	Wednesday	14	Rear-end	Multi-Vehicle	-24.86611483	152.3487532	Barolin St	Bourbong St	Local	Intersection - Roundabout	Give way sign	0 - 50 km/h	Sealed - Dry	Clear	Daylight	Curved - view open	Level	Veh'S Same Direction: Rear End
1	210022	Medical treatment	2010 July	Friday	13	Rear-end	Multi-Vehicle	-24.86822183	152.3495882	Barolin St	Wooodooma St	Local	Intersection - Roundabout	Give way sign	0 - 50 km/h	Sealed - Dry	Clear	Daylight	Straight	Grade	Veh'S Same Direction: Rear End
1	23919	Minor injury	2002 January	Wednesday	9	Rear-end	Multi-Vehicle	-24.86837805	152.3495335	Barolin St	Wooodooma St	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
1	83978	Medical treatment	2004 October	Thursday	16	Rear-end	Multi-Vehicle	-27.50599066	153.2147746	Barron Rd	Old Cleveland Rd East	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
1	191857	Minor injury	2009 March	Saturday	12	Rear-end	Multi-Vehicle	-27.67207041	153.0745595	Bayliss Rd	Browns Plains Rd	Local	Intersection - Roundabout	Give way sign	70 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
1	54820	Medical treatment	2003 July	Wednesday	0	Rear-end	Multi-Vehicle	-27.67222571	153.0746466	Bayliss Rd	Browns Plains Rd	Local	Intersection - Roundabout	Give way sign	80 - 90 km/h	Sealed - Dry	Clear	Darkness - Lighted	Straight	Level	Veh'S Same Direction: Rear End
1	127586	Medical treatment	2006 August	Thursday	15	Rear-end	Multi-Vehicle	-19.27308039	146.7596232	Bayswater Rd	Bruce Hwy	State	Intersection - Roundabout	Give way sign	70 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
1	51849	Hospitalisation	2003 April	Sunday	16	Rear-end	Multi-Vehicle	-19.27289551	146.7597178	Bayswater Rd	Bruce Hwy	State	Intersection - Roundabout	Give way sign	70 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
1	109213	Property damage only	2005 October	Friday	14	Rear-end	Multi-Vehicle	-19.27302413	146.7596116	Bayswater Rd	Bruce Hwy	State	Intersection - Roundabout	Give way sign	70 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
1	229739	Hospitalisation	2011 June	Thursday	12	Rear-end	Multi-Vehicle	-19.27327532	146.7599435	Bayswater Rd	Douglas - Garbutt Rd	State	Intersection - Roundabout	Give way sign	70 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
1	6891	Medical treatment	2001 July	Wednesday	9	Rear-end	Multi-Vehicle	-19.27292927	146.7597085	Bayswater Rd	Duckworth St	State	Intersection - Roundabout	Give way sign	70 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
1	76354	Minor injury	2004 July	Saturday	9	Rear-end	Multi-Vehicle	-19.27646728	146.7918726	Bayswater Rd	Kings Rd	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
1	45617	Medical treatment	2002 November	Tuesday	8	Rear-end	Multi-Vehicle	-19.27174495	146.7481475	Bayswater Rd	Mather St	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
1	186123	Property damage only	2009 April	Saturday	11	Rear-end	Multi-Vehicle	-19.27381899	146.7668389	Bayswater Rd	Pilkington St	Local	Intersection - Roundabout	No traffic control	60 km/h	Sealed - Wet	Raining	Daylight	Straight	Level	Veh'S Same Direction: Rear End
1	143754	Medical treatment	2006 November	Tuesday	8	Rear-end	Multi-Vehicle	-21.1095475	149.1806798	Beaconsfield Rd	Glenpark St	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
1	42749	Medical treatment	2001 October	Monday	15	Rear-end	Multi-Vehicle	-27.35113601	153.0459504	Beams Rd	Church Rd	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
1	52428	Medical treatment	2003 May	Tuesday	18	Rear-end	Multi-Vehicle	-27.34771319	153.0220047	Beams Rd	Dorville Rd	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Darkness - Lighted	Straight	Level	Veh'S Same Direction: Rear End
1	14177	Medical treatment	2001 July	Wednesday	6	Rear-end	Multi-Vehicle	-27.34745534	153.0218865	Beams Rd	Dorville Rd	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Dawn/Dusk	Straight	Level	Veh'S Same Direction: Rear End
1	42673	Medical treatment	2002 December	Tuesday	6	Rear-end	Multi-Vehicle	-27.34742872	153.0218806	Beams Rd	Dorville Rd	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
1	92287	Medical treatment	2004 August	Tuesday	18	Rear-end	Multi-Vehicle	-27.34761171	153.0222471	Beams Rd	Dorville Rd	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Wet	Raining	Dawn/Dusk	Straight	Level	Veh'S Same Direction: Rear End
1	183894	Medical treatment	2008 December	Tuesday	17	Rear-end	Multi-Vehicle	-27.72171113	153.1947283	Beaudesert - Beenleigh Rd	Beenleigh Connection Rd	State	Intersection - Roundabout	Pedestrian crossing sign	60 km/h	Sealed - Dry	Clear	Daylight	Curved - view open	Grade	Veh'S Same Direction: Rear End
1	54612	Property damage only	2003 June	Wednesday	16	Rear-end	Multi-Vehicle	-27.72189041	153.1948338	Beaudesert - Beenleigh Rd	Beenleigh Connection Rd	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Wet	Raining	Daylight	Straight	Grade	Veh'S Same Direction: Rear End
1	233323	Hospitalisation	2011 October	Thursday	8	Rear-end	Multi-Vehicle	-27.72178924	153.1949493	Beaudesert - Beenleigh Rd	Lehmans Rd	State	Intersection - Roundabout	Give way sign	0 - 50 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
1	177413	Minor injury	2010 September	Monday	10	Rear-end	Multi-Vehicle	-27.72176625	153.1949033	Beaudesert - Beenleigh Rd	Lehmans Rd	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Wet	Raining	Daylight	Straight	Level	Veh'S Same Direction: Rear End
1	29232	Medical treatment	2010 March	Wednesday	12	Rear-end	Multi-Vehicle	-19.31975419	146.7161671	Beck Dr	Hervey'S Range Developmental Rd	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Wet	Raining	Daylight	Straight	Level	Veh'S Same Direction: Rear End
1	96417	Property damage only	2005 May	Saturday	16	Rear-end	Multi-Vehicle	-19.32056465	146.7157749	Beck Dr		Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
1	34026	Medical treatment	2002 August	Wednesday	16	Rear-end	Multi-Vehicle	-27.38589994	152.9845391	Beckett Rd	Queens Rd	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Dip	Veh'S Same Direction: Rear End
1	187542	Hospitalisation	2009 May	Tuesday	6	Rear-end	Multi-Vehicle	-27.38561881	152.9851135	Beckett Rd	Rode Rd	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Dawn/Dusk	Straight	Level	Veh'S Same Direction: Rear End
1	62848	Minor injury	2004 February	Tuesday	8	Rear-end	Multi-Vehicle	-27.38559509	152.9851819	Beckett Rd	Rode Rd	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Curved - view open	Level	Veh'S Same Direction: Rear End
1	99798	Minor injury	2005 June	Thursday	16	Rear-end	Multi-Vehicle	-27.38559851	152.9850806	Beckett Rd	Rode Rd	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
1	173089	Medical treatment	2008 June	Sunday	10	Rear-end	Multi-Vehicle	-27.38563295	152.9851375	Beckett Rd	Rode Rd	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Grade	Veh'S Same Direction: Rear End
1	204126	Medical treatment	2008 October	Monday	18	Rear-end	Multi-Vehicle	-27.38559554	152.9851429	Beckett Rd	Rode Rd	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Dawn/Dusk	Straight	Level	Veh'S Same Direction: Rear End
1	29653	Medical treatment	2002 March	Friday	11	Rear-end	Multi-Vehicle	-27.38607255	152.9852278	Beckett Rd	Rode Rd	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Wet	Clear	Daylight	Straight	Grade	Veh'S Same Direction: Rear End
1	135044	Property damage only	2007 January	Thursday	15	Rear-end	Multi-Vehicle	-27.50810457	153.2569364	Beckwith St	Wellington St	Local	Intersection - Roundabout	Give way sign	0 - 50 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
1	91554	Minor injury	2004 December	Tuesday	6	Rear-end	Multi-Vehicle	-27.57546554	153.0400625	Beenleigh Rd	Bradman St	Local	Intersection - Roundabout	No traffic control	60 km/h	Sealed - Wet	Raining	Daylight	Straight	Level	Veh'S Same Direction: Rear End
1	112656	Minor injury	2005 March	Wednesday	20	Rear-end	Multi-Vehicle	-27.08905419	152.9270751	Bellmere Rd	River Dr	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Darkness - Lighted	Straight	Level	Veh'S Same Direction: Rear End
1	60427	Medical treatment	2003 April	Tuesday	16	Rear-end	Multi-Vehicle	-27.36963937	153.0506765	Bilsen Rd	Robinson Rd E	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
1	102566	Medical treatment	2005 September	Monday	6	Rear-end	Multi-Vehicle	-27.39654967	153.0511933	Bilsen Rd	Rode Rd	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
1	222460	Property damage only	2010 November	Friday	13	Rear-end	Multi-Vehicle	-27.39656947	153.0512068	Bilsen Rd	Rode Rd	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
1	25080	Medical treatment	2001 December	Sunday	22	Rear-end	Multi-Vehicle	-27.48651059	153.2385875	Birkdale Rd	Main Rd	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Darkness - Lighted	Straight	Level	Veh'S Same Direction: Rear End
1	140764	Property damage only	2007 January	Wednesday	10	Rear-end	Multi-Vehicle	-19.31934552	146.7224449	Black Hawk Bvd	Hervey'S Range Developmental Rd	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Wet	Raining	Daylight	Curved - view open	Level	Veh'S Same Direction: Rear End
1	137051	Hospitalisation	2006 December	Thursday	15	Rear-end	Multi-Vehicle	-27.40943165	152.9747334	Blackwood St	Ruby Rd	Local	Intersection - Roundabout	Give way sign	0 - 50 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
1	125551	Minor injury	2006 June	Friday	7	Rear-end	Multi-Vehicle	-27.69216541	153.064766	Blue Wren Pl	Green Rd	Local	Intersection - Roundabout	Give way sign	70 km/h	Sealed - Dry	Clear	Daylight	Curved - view open	Crest	Veh'S Same Direction: Rear End
1	56521	Medical treatment	2003 July	Wednesday	13	Rear-end	Multi-Vehicle	-25.29320724	152.8939847	Boat Harbour Dr	Elizabeth St	State	Intersection - Roundabout	No traffic control	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Grade	Veh'S Same Direction: Rear End
1	223241	Property damage only	2010 May	Wednesday	13	Rear-end	Multi-Vehicle	-23.52570661	148.1616483	Borilla St	Egerton St	Local	Intersection - Roundabout	Give way sign	0 - 50 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
1	28378	Medical treatment	2002 March	Friday	11	Rear-end	Multi-Vehicle	-27.71547892	153.197577	Bougainville St	George St	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
1	129332	Minor injury	2006 June	Tuesday	11	Rear-end	Multi-Vehicle	-27.60426309	152.9321478	Boundary Rd	Formation St	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
1	149100	Hospitalisation	2007 September	Friday	16	Rear-end	Multi-Vehicle	-27.21213855	152.9875796	Boundary Rd	Old Gympie Rd	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Wet	Clear	Daylight	Straight	Crest	Veh'S Same Direction: Rear End
1	99614	Medical treatment	2005 March	Wednesday	8	Rear-end	Multi-Vehicle	-27.57261604	152.9728838	Boundary Rd	Rudd St	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Unknown	Straight	Level	Veh'S Same Direction: Rear End
1	79360	Medical treatment	2004 July	Thursday	9	Rear-end	Multi-Vehicle	-24.86491566	152.3530538	Bourbong St	Tantitha St	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear				

1	89894	Minor injury	2005	January	Wednesday	20	Rear-end	Multi-Vehicle	-27.31358612	153.0620424	Deagon St	Southerden St	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Darkness - Lighted	Straight	Level	Veh'S Same Direction: Rear End
1	224274	Property damage only	2010	April	Tuesday	14	Rear-end	Multi-Vehicle	-23.37824654	150.513447	Denham St	Local	Intersection - Roundabout	Give way sign	0 - 50 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End	
1	61891	Medical treatment	2003	November	Saturday	22	Rear-end	Multi-Vehicle	-27.6217968	153.1274821	Dennis Rd	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Darkness - Lighted	Straight	Level	Veh'S Same Direction: Rear End	
1	29782	Minor injury	2002	May	Friday	13	Rear-end	Multi-Vehicle	-27.41546247	153.0468671	Dickson St	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Wet	Raining	Daylight	Straight	Level	Veh'S Same Direction: Rear End	
1	79428	Minor injury	2004	August	Tuesday	15	Rear-end	Multi-Vehicle	-27.39674164	153.0515162	Edinburgh Castle Rd	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Wet	Raining	Daylight	Straight	Crest	Veh'S Same Direction: Rear End	
1	167398	Property damage only	2008	May	Wednesday	15	Rear-end	Multi-Vehicle	-27.51324005	153.0380454	Ekibin Rd	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End	
1	24702	Property damage only	2002	January	Tuesday	16	Rear-end	Multi-Vehicle	-26.41730161	152.9104829	Emerald St	Local	Intersection - Roundabout	Give way sign	0 - 50 km/h	Sealed - Wet	Raining	Daylight	Straight	Level	Veh'S Same Direction: Rear End	
1	23130	Property damage only	2002	February	Friday	8	Rear-end	Multi-Vehicle	-24.89061648	152.3410613	Enterprise St	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Grade	Veh'S Same Direction: Rear End	
1	84377	Medical treatment	2004	September	Monday	17	Rear-end	Multi-Vehicle	-27.54502343	153.2542939	Enterprise St	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Wet	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End	
1	187207	Minor injury	2008	October	Thursday	18	Rear-end	Multi-Vehicle	-26.76907217	153.118788	Erang St	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Darkness - Lighted	Straight	Level	Veh'S Same Direction: Rear End	
1	18116	Hospitalisation	2001	October	Thursday	12	Rear-end	Multi-Vehicle	-27.47915955	153.0217789	Ernest St	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End	
1	60379	Minor injury	2003	October	Friday	6	Rear-end	Multi-Vehicle	-27.45773205	153.1780459	Ernest St	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Raining	Daylight	Straight	Level	Veh'S Same Direction: Rear End	
1	139499	Medical treatment	2006	November	Thursday	17	Rear-end	Multi-Vehicle	-19.30967038	146.8060943	Fairfield Waters Dr	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End	
1	221773	Medical treatment	2010	May	Thursday	15	Rear-end	Multi-Vehicle	-19.30966223	146.806306	Fairfield Waters Dr	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End	
1	30914	Minor injury	2001	February	Wednesday	19	Rear-end	Multi-Vehicle	-27.65211808	152.7709782	Fairview St	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Darkness - Lighted	Straight	Level	Veh'S Same Direction: Rear End	
1	221218	Hospitalisation	2010	July	Friday	18	Rear-end	Multi-Vehicle	-23.34444157	150.5281148	Feez St	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Darkness - Lighted	Straight	Level	Veh'S Same Direction: Rear End	
1	198624	Minor injury	2009	May	Thursday	8	Rear-end	Multi-Vehicle	-27.40086508	152.9976709	Felstead	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Wet	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End	
1	219731	Medical treatment	2010	February	Friday	16	Rear-end	Multi-Vehicle	-27.48679315	153.0784972	Ferguson Rd	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Curved - view open	Dip	Veh'S Same Direction: Rear End	
1	237560	Hospitalisation	2012	August	Thursday	17	Rear-end	Multi-Vehicle	-27.30298448	153.0650829	Flinders Pde	Local	Intersection - Roundabout	Give way sign	0 - 50 km/h	Sealed - Dry	Clear	Dawn/Dusk	Straight	Level	Veh'S Same Direction: Rear End	
1	138101	Property damage only	2006	October	Tuesday	7	Rear-end	Multi-Vehicle	-27.18576791	152.9336796	Forest Ridge Dr	Local	Intersection - Roundabout	Give way sign	80 - 90 km/h	Sealed - Dry	Clear	Daylight	Curved - view open	Crest	Veh'S Same Direction: Rear End	
1	139372	Minor injury	2006	October	Tuesday	7	Rear-end	Multi-Vehicle	-27.18576872	152.9336885	Forest Ridge Dr	Local	Intersection - Roundabout	Give way sign	80 - 90 km/h	Sealed - Dry	Clear	Daylight	Curved - view open	Crest	Veh'S Same Direction: Rear End	
1	151879	Property damage only	2007	November	Tuesday	12	Rear-end	Multi-Vehicle	-27.55508921	152.9618667	Fort Rd	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Grade	Veh'S Same Direction: Rear End	
1	155188	Property damage only	2008	May	Wednesday	18	Rear-end	Multi-Vehicle	-27.28716199	152.9770144	Francis Rd	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Darkness - Lighted	Straight	Level	Veh'S Same Direction: Rear End	
1	54466	Property damage only	2003	October	Friday	15	Rear-end	Multi-Vehicle	-27.57822408	152.9737762	Freeman Rd	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Crest	Veh'S Same Direction: Rear End	
1	69038	Medical treatment	2003	November	Sunday	18	Rear-end	Multi-Vehicle	-27.57800431	152.9738792	Freeman Rd	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Darkness - Lighted	Straight	Grade	Veh'S Same Direction: Rear End	
1	54101	Medical treatment	2003	March	Tuesday	12	Rear-end	Multi-Vehicle	-19.29313306	146.7489161	Fulham Rd	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End	
1	110882	Minor injury	2005	December	Thursday	16	Rear-end	Multi-Vehicle	-27.49778592	152.9905086	Galley Rd	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Wet	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End	
1	116337	Medical treatment	2005	November	Wednesday	17	Rear-end	Multi-Vehicle	-28.1388177	153.4617965	Galleon Way	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Dawn/Dusk	Straight	Level	Veh'S Same Direction: Rear End	
1	54325	Medical treatment	2003	June	Saturday	16	Rear-end	Multi-Vehicle	-27.50413288	153.09273	Gallipoli Rd	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End	
1	89560	Minor injury	2004	February	Friday	14	Rear-end	Multi-Vehicle	-27.50419552	153.0929109	Gallipoli Rd	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Grade	Veh'S Same Direction: Rear End	
1	161024	Property damage only	2007	December	Friday	20	Rear-end	Multi-Vehicle	-24.87107282	152.3528833	George St	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Darkness - Lighted	Straight	Level	Veh'S Same Direction: Rear End	
1	20232	Medical treatment	2002	January	Friday	15	Rear-end	Multi-Vehicle	-24.87050554	152.3594294	George St	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End	
1	157940	Medical treatment	2008	August	Monday	15	Rear-end	Multi-Vehicle	-28.01321641	153.4181739	Gibraltar Dr	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End	
1	171477	Hospitalisation	2008	July	Wednesday	18	Rear-end	Multi-Vehicle	-28.00288166	153.3283179	Gilston Rd	Local	Intersection - Roundabout	Give way sign	0 - 50 km/h	Sealed - Dry	Clear	Daylight	Straight	Crest	Veh'S Same Direction: Rear End	
1	108988	Minor injury	2005	July	Monday	15	Rear-end	Multi-Vehicle	-19.31225511	146.7970026	Glendale Dr	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End	
1	120063	Medical treatment	2006	February	Friday	6	Rear-end	Multi-Vehicle	-27.437432	153.1672942	Glenora St	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Wet	Raining	Daylight	Straight	Level	Veh'S Same Direction: Rear End	
1	225722	Minor injury	2010	May	Saturday	9	Rear-end	Multi-Vehicle	-27.43729956	153.1671825	Glenora St	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Wet	Raining	Daylight	Straight	Level	Veh'S Same Direction: Rear End	
1	56135	Medical treatment	2003	July	Wednesday	17	Rear-end	Multi-Vehicle	-27.56421973	151.9151383	Glenvale Rd	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Grade	Veh'S Same Direction: Rear End	
1	94444	Property damage only	2005	February	Saturday	10	Rear-end	Multi-Vehicle	-27.56300815	151.9068415	Glenvale Rd	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End	
1	68380	Minor injury	2004	March	Wednesday	8	Rear-end	Multi-Vehicle	-27.64397958	152.9189726	Goodna - Oxley Creek Rd	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End	
1	147939	Medical treatment	2006	June	Wednesday	20	Rear-end	Multi-Vehicle	-27.64552418	152.917908	Goodna - Oxley Creek Rd	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Wet	Raining	Darkness - Lighted	Straight	Level	Veh'S Same Direction: Rear End	
1	175723	Property damage only	2010	August	Friday	8	Rear-end	Multi-Vehicle	-27.0742244	153.1635686	Goodwin Dr	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Wet	Raining	Daylight	Straight	Level	Veh'S Same Direction: Rear End	
1	101622	Minor injury	2005	April	Friday	17	Rear-end	Multi-Vehicle	-27.06422256	153.1545081	Goodwin Dr	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End	
1	211828	Property damage only	2010	September	Wednesday	15	Rear-end	Multi-Vehicle	-27.06640839	153.1584376	Goodwin Dr	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End	
1	91846	Minor injury	2004	November	Tuesday	13	Rear-end	Multi-Vehicle	-27.94432805	153.3993177	Government Rd	Local	Intersection - Roundabout	Give way sign	0 - 50 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End	
1	6403	Hospitalisation	2001	February	Wednesday	16	Rear-end	Multi-Vehicle	-27.9442805	153.3993199	Government Rd	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End	
1	200006	Medical treatment	2009	November	Saturday	15	Rear-end	Multi-Vehicle	-27.94400456	153.399482	Government Rd	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End	
1	121663	Property damage only	2006	June	Saturday	11	Rear-end	Multi-Vehicle	-27.94402847	153.3994065	Government Rd	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End	
1	93418	Medical treatment	2004	December	Thursday	13	Rear-end	Multi-Vehicle	-27.49639368	153.1394388	Grassdale Rd	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End	
1	78856	Medical treatment	2004	June	Tuesday	7	Rear-end	Multi-Vehicle	-27.69140147	153.0597815	Green Rd	Local	Intersection - Roundabout	Give way sign	70 km/h	Sealed - Dry	Clear	Daylight	Straight	Crest	Veh'S Same Direction: Rear End	
1	42781	Minor injury	2003	February	Tuesday	23	Rear-end	Multi-Vehicle	-27.94866337	153.3469045	Greenacre Dr	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Wet	Raining	Darkness - Lighted	Curved - view open	Level	Veh'S Same Direction: Rear End	
1	227985	Medical treatment	2009	October	Thursday	14	Rear-end	Multi-Vehicle	-28.0503151	153.4032274	Greenwich Ct	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End	
1	56024	Hospitalisation	2003	July	Saturday	6	Rear-end	Multi-Vehicle	-27.20956264	153.1132059	Griffith Rd	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Dawn/Dusk	Straight	Level	Veh'S Same Direction: Rear End	
1	114499	Minor injury	2005	October	Monday	8	Rear-end	Multi-Vehicle	-27.20942321	153.1134459	Griffith Rd	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End	
1	121037	Minor injury	2006	March	Saturday	11	Rear-end	Multi-Vehicle	-27.20983361	153.113307	Griffith Rd	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End	
1	195193	Medical treatment	2009	August	Thursday	12	Rear-end	Multi-Vehicle	-27.20906433	153.1093733	Griffith Rd	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Grade	Veh'S Same Direction: Rear End	
1	152218	Medical treatment	2007	January	Monday	0	Rear-end	Multi-Vehicle	-28.16854789	153.5392764	Griffith St	Local	Intersection - Roundabout	No traffic control	0 - 50 km/h	Sealed - Dry	Clear	Darkness - Lighted	Straight	Level	Veh'S Same Direction: Rear End	
1	5842	Property damage only	2001	May	Thursday	15	Rear-end	Multi-Vehicle	-16.91427121	145.7640005	Grove St	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End	
1	131061	Medical treatment	2006	July	Wednesday	9	Rear-end	Multi-Vehicle	-16.94222051	145.7581688	Hartley St	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End	
1	164500	Minor injury	2008	July	Thursday	7	Rear-end	Multi-Vehicle	-26.49591588	153.0782864	Havana Rd	Local	Intersection - Roundabout	Give way sign	0 - 50 km/h	Sealed - Wet	Raining	Daylight	Straight	Level	Veh'S Same Direction: Rear End	
1	225569	Medical treatment	2010	September	Thursday	18	Rear-end	Multi-Vehicle	-27.59740927	153.0443064	Hellawell Rd	Local	Intersection - Roundabout	Give way sign	0 - 50 km/h	Sealed - Dry	Clear	Darkness - Lighted	Straight	Level	Veh'S Same Direction: Rear End	
1	123670	Medical treatment	2006	December	Friday	13	Rear-end	Multi-Vehicle	-27.62815752	152.8747903	Henty Dr	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End	
1	129107	Hospitalisation	2006	October	Friday	23	Rear-end	Multi-Vehicle	-20.00752224	148.2432939	Herbert St	Local	Intersection - Roundabout	No traffic control	60 km/h	Sealed - Dry	Clear	Darkness - Lighted	Straight	Level	Veh'S Same Direction: Rear End	
1	201139	Medical treatment	2009	October	Friday	16	Rear-end	Multi-Vehicle	-20.01312409	148.2469955	Herbert St	Local	Intersection - Roundabout	Give way sign	0 - 50 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End	
1	115752	Property damage only	2005	November	Tuesday	15	Rear-end	Multi-Vehicle	-23.12885327	150.7477681	Hill St	Local	Intersection - Roundabout	Give way sign	0 - 50 km/h							

1	220160	Minor injury	2010	February	Wednesday	15	Rear-end	Multi-Vehicle	-27.27308637	152.9516653	McIllwraith Rd	Youngs Crossing Rd	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
1	65642	Property damage only	2003	December	Saturday	10	Rear-end	Multi-Vehicle	-27.27334687	152.9514322	McIllwraith Rd	Youngs Crossing Rd	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Wet	Raining	Daylight	Straight	Level	Veh'S Same Direction: Rear End
1	42315	Minor injury	2003	February	Saturday	11	Rear-end	Multi-Vehicle	-28.0279587	153.4267321	Miami Key	T.E. Peters Dr	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
1	56387	Medical treatment	2003	July	Tuesday	15	Rear-end	Multi-Vehicle	-27.71885828	152.9882401	Middle Rd	Teviot Rd	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
1	159402	Medical treatment	2007	October	Thursday	17	Rear-end	Multi-Vehicle	-27.71883953	152.9882263	Middle Rd	Teviot Rd	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
1	112464	Minor injury	2005	December	Wednesday	7	Rear-end	Multi-Vehicle	-27.68608468	153.0126017	Middle Rd	Tovey Rd	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
1	138826	Medical treatment	2007	January	Monday	11	Rear-end	Multi-Vehicle	-27.97577788	153.4064731	Minnie St	Tweed St	Local	Intersection - Roundabout	No traffic control	0 - 50 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
1	163113	Minor injury	2006	August	Sunday	11	Rear-end	Multi-Vehicle	-26.39114606	153.0348144	Moorindill St	Poinciana Ave	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
1	110858	Minor injury	2005	December	Wednesday	8	Rear-end	Multi-Vehicle	-27.54709499	153.1322595	Mt Gravatt - Capalaba Rd	Redland Sub-Arterial Rd	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
1	221424	Property damage only	2010	June	Tuesday	10	Rear-end	Multi-Vehicle	-27.5471388	153.1319659	Mt Gravatt - Capalaba Rd	Redland Sub-Arterial Rd	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Curved - view open	Level	Veh'S Same Direction: Rear End
1	60897	Medical treatment	2003	May	Thursday	7	Rear-end	Multi-Vehicle	-27.54712395	153.1322737	Mt Gravatt - Capalaba Rd	Redland Sub-Arterial Rd	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Wet	Raining	Daylight	Straight	Level	Veh'S Same Direction: Rear End
1	36271	Minor injury	2002	August	Thursday	17	Rear-end	Multi-Vehicle	-27.5271437	153.158249	Mt Gravatt - Capalaba Rd	Tilley Rd	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Wet	Raining	Dawn/Dusk	Curved - view open	Level	Veh'S Same Direction: Rear End
1	180146	Minor injury	2008	July	Thursday	16	Rear-end	Multi-Vehicle	-27.52606312	153.158977	Mt Gravatt - Capalaba Rd	Tilley Rd	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Wet	Raining	Daylight	Straight	Level	Veh'S Same Direction: Rear End
1	145856	Medical treatment	2007	October	Wednesday	16	Rear-end	Multi-Vehicle	-27.36115762	153.0491992	Newman Rd	Zillmere Rd	Local	Intersection - Roundabout	No traffic control	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
1	59752	Medical treatment	2003	August	Saturday	7	Rear-end	Multi-Vehicle	-26.39780496	153.0692181	Noosa Pde	Weyba Rd	Local	Intersection - Roundabout	Give way sign	0 - 50 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
1	54045	Medical treatment	2003	February	Wednesday	13	Rear-end	Multi-Vehicle	-26.38796276	153.0895375	Noosa Pde		Local	Intersection - Roundabout	Give way sign	0 - 50 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
1	191447	Medical treatment	2008	September	Sunday	12	Rear-end	Multi-Vehicle	-26.38805948	153.0898234	Noosa Pde		Local	Intersection - Roundabout	Pedestrian crossing sign	0 - 50 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
1	40696	Minor injury	2002	November	Tuesday	15	Rear-end	Multi-Vehicle	-27.53893339	151.9319324	North St	Tor St	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
1	62386	Minor injury	2003	December	Saturday	12	Rear-end	Multi-Vehicle	-27.50700782	153.2212054	Old Cleveland Rd East	Randall Rd	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Grade	Veh'S Same Direction: Rear End
1	155090	Property damage only	2003	June	Thursday	9	Rear-end	Multi-Vehicle	-27.50700368	153.2211992	Old Cleveland Rd East	Randall Rd	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Wet	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
1	207829	Medical treatment	2010	January	Sunday	19	Rear-end	Multi-Vehicle	-28.10073311	153.4009187	Old Coach Rd	Pacific Hwy Overpass	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Dawn/Dusk	Straight	Level	Veh'S Same Direction: Rear End
1	210230	Property damage only	2010	November	Friday	12	Rear-end	Multi-Vehicle	-23.12977683	150.7397385	Park St	Queen St	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Curved - view open	Level	Veh'S Same Direction: Rear End
1	82948	Medical treatment	2004	July	Wednesday	15	Rear-end	Multi-Vehicle	-27.57436985	151.9643644	Perth St	Ramsay St	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
1	166278	Property damage only	2008	October	Monday	12	Rear-end	Multi-Vehicle	-26.6320068	152.9536022	Perwillowen Rd	Windsor Rd	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
1	168563	Medical treatment	2009	January	Wednesday	8	Rear-end	Multi-Vehicle	-27.60992311	152.8991307	Queen St	Smiths Rd	Local	Intersection - Roundabout	Give way sign	0 - 50 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
1	198009	Medical treatment	2010	December	Thursday	7	Rear-end	Multi-Vehicle	-27.38587696	152.9845116	Queens Rd	Rode Rd	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Wet	Raining	Daylight	Straight	Grade	Veh'S Same Direction: Rear End
1	49082	Minor injury	2003	June	Thursday	12	Rear-end	Multi-Vehicle	-27.38590238	152.9845448	Queens Rd	Rode Rd	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Wet	Clear	Daylight	Curved - view open	Grade	Veh'S Same Direction: Rear End
1	8351	Minor injury	2001	March	Tuesday	18	Rear-end	Multi-Vehicle	-27.60946081	152.899306	Redbank Plains Rd	Smiths Rd	Local	Intersection - Roundabout	Give way sign	0 - 50 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
1	57696	Minor injury	2003	September	Monday	14	Rear-end	Multi-Vehicle	-27.60994208	152.8991205	Redbank Plains Rd	Smiths Rd	Local	Intersection - Roundabout	No traffic control	60 km/h	Sealed - Dry	Clear	Daylight	Curved - view open	Level	Veh'S Same Direction: Rear End
1	56728	Minor injury	2003	August	Thursday	16	Rear-end	Multi-Vehicle	-27.6517159	152.7673069	Reif St	South Whitehill Rd	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
1	171880	Medical treatment	2010	April	Tuesday	16	Rear-end	Multi-Vehicle	-28.02648605	153.4175988	Rio Vista Blvd	T.E. Peters Dr	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Curved - view open	Level	Veh'S Same Direction: Rear End
1	46417	Medical treatment	2002	September	Thursday	19	Rear-end	Multi-Vehicle	-19.31905425	146.7462538	Riverbend Dr	Riverside Blvd	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Darkness - Lighted	Straight	Level	Veh'S Same Direction: Rear End
1	14733	Property damage only	2001	September	Wednesday	19	Rear-end	Multi-Vehicle	-27.62919748	152.7863447	Robertson Rd	South Station Rd	Local	Intersection - Roundabout	No traffic control	60 km/h	Sealed - Dry	Clear	Darkness - Lighted	Straight	Level	Veh'S Same Direction: Rear End
1	42196	Property damage only	2002	November	Saturday	6	Rear-end	Multi-Vehicle	-28.08112708	153.3835161	Robina Parkway	Robina Town Centre Dr	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
1	223805	Medical treatment	2010	August	Tuesday	15	Rear-end	Multi-Vehicle	-28.08105425	153.3835618	Robina Parkway	Robina Town Centre Dr	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Curved - view obscured	Level	Veh'S Same Direction: Rear End
1	54776	Medical treatment	2003	July	Thursday	21	Rear-end	Multi-Vehicle	-28.08016063	153.3891398	Robina Town Centre Dr	Robina Town Centre Dr	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Darkness - Lighted	Straight	Level	Veh'S Same Direction: Rear End
1	150308	Medical treatment	2007	October	Friday	17	Rear-end	Multi-Vehicle	-28.08024282	153.3840261	Robina Town Centre Dr	Robina Town Centre Dr	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
1	202514	Minor injury	2009	July	Monday	17	Rear-end	Multi-Vehicle	-28.07987189	153.3838231	Robina Town Centre Dr	Robina Town Centre Dr	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Dawn/Dusk	Curved - view open	Level	Veh'S Same Direction: Rear End
1	58362	Minor injury	2002	April	Thursday	19	Rear-end	Multi-Vehicle	-28.07908377	153.3887648	Robina Town Centre Dr	Scottsdale Dr	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Darkness - Lighted	Straight	Level	Veh'S Same Direction: Rear End
1	76883	Medical treatment	2004	May	Tuesday	11	Rear-end	Multi-Vehicle	-28.07922659	153.3886948	Robina Town Centre Dr	Scottsdale Dr	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Curved - view open	Level	Veh'S Same Direction: Rear End
1	226090	Medical treatment	2010	November	Tuesday	17	Rear-end	Multi-Vehicle	-28.0774762	153.3890897	Robina Town Centre Dr		Local	Intersection - Roundabout	Give way sign	0 - 50 km/h	Sealed - Dry	Clear	Daylight	Curved - view open	Dip	Veh'S Same Direction: Rear End
1	23502	Minor injury	2002	January	Thursday	16	Rear-end	Multi-Vehicle	-27.55783424	151.9436494	Russell St	West St	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
1	147498	Hospitalisation	2007	September	Thursday	20	Rear-end	Multi-Vehicle	-26.72265317	153.0582634	Scholars Dr	University Way	Local	Intersection - Roundabout	No traffic control	60 km/h	Sealed - Wet	Raining	Darkness - Lighted	Straight	Level	Veh'S Same Direction: Rear End
1	202779	Medical treatment	2009	November	Friday	11	Rear-end	Multi-Vehicle	-27.96925545	153.4277321	Seaworld Dr		Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
1	140119	Property damage only	2007	March	Wednesday	12	Rear-end	Multi-Vehicle	-16.93008959	145.7691061	Severin St	Spence St	Local	Intersection - Roundabout	No traffic control	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
1	200461	Hospitalisation	2011	July	Friday	12	Rear-end	Multi-Vehicle	-27.547719	153.254172	South St	Wellington St	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
1	64813	Medical treatment	2003	September	Saturday	12	Rear-end	Multi-Vehicle	-27.99867574	153.4236636	Stanhill Dr	Thomas Dr	Local	Intersection - Roundabout	Give way sign	0 - 50 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
1	210998	Minor injury	2010	October	Saturday	9	Rear-end	Multi-Vehicle	-27.99858501	153.4234705	Stanhill Dr	Thomas Dr	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Wet	Raining	Daylight	Straight	Level	Veh'S Same Direction: Rear End
1	115824	Minor injury	2005	May	Friday	14	Rear-end	Multi-Vehicle	-24.86654811	152.3514038	Targo St	Woongarra St	Local	Intersection - Roundabout	Give way sign	0 - 50 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
1	182657	Medical treatment	2009	May	Thursday	10	Rear-end	Multi-Vehicle	-24.86651128	152.3514016	Targo St	Woongarra St	Local	Intersection - Roundabout	Give way sign	0 - 50 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
1	50609	Hospitalisation	2002	September	Friday	9	Rear-end	Multi-Vehicle	-28.13496062	153.4892805	Teemangum St	Tomewin St	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
1	28938	Property damage only	2002	May	Saturday	18	Rear-end	Multi-Vehicle	-21.14056028	149.1809352	Victoria St	Wellington St	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Wet	Raining	Darkness - Lighted	Straight	Level	Veh'S Same Direction: Rear End
1	28254	Hospitalisation	2002	May	Sunday	18	Rear-end	Multi-Vehicle	-27.61376344	152.9572044	Waterford Rd	Woogaroo St	Local	Intersection - Roundabout	Give way sign	0 - 50 km/h	Sealed - Dry	Clear	Dawn/Dusk	Straight	Level	Veh'S Same Direction: Rear End
1	149742	Medical treatment	2007	May	Wednesday	7	Rear-end	Multi-Vehicle	-27.50426193	153.0937279	Willard St	Winstanley St	Local	Intersection - Roundabout	Give way sign	0 - 50 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
1	5394	Minor injury	2001	May	Friday	14	Rear-end	Multi-Vehicle	-27.50438673	153.093994	Willard St	Winstanley St	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	128634	Medical treatment	2006	November	Tuesday	8	Rear-end	Multi-Vehicle	-19.31343414	146.7630314	Angus Smith Dr	Bruce Hwy	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	187906	Property damage only	2009	June	Wednesday	13	Rear-end	Multi-Vehicle	-19.31343332	146.7630293	Angus Smith Dr	Bruce Hwy	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	67980	Property damage only	2003	November	Thursday	7	Rear-end	Multi-Vehicle	-19.31303914	146.7629127	Angus Smith Dr	University Rd	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	14868	Property damage only	2001	October	Thursday	9	Rear-end	Multi-Vehicle	-19.31304054	146.762892	Angus Smith Dr	University Rd	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	35161	Minor injury	2002	October	Wednesday	8	Rear-end	Multi-Vehicle	-19.31302934	146.7629052	Angus Smith Dr	University Rd	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	49392	Medical treatment	2003	May	Wednesday	19	Rear-end	Multi-Vehicle	-19.31304533	146.7629115	Angus Smith Dr	University Rd	State	Intersection - Roundabout	No traffic control	60 km/h	Sealed - Wet	Raining	Darkness - Lighted	Straight	Level	Veh'S Same Direction: Rear End
2	43398	Property damage only	2002	November	Thursday	7	Rear-end	Multi-Vehicle	-19.31303773	146.7628945	Angus Smith Dr	University Rd	State	Intersection - Roundabout	No traffic control	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	

2	141757	Medical treatment	2006	June	Friday	15	Rear-end	Multi-Vehicle	-23.84928122	151.2311074	Blain Dr	Gladstone - Mt Larcom Rd	State	Intersection - Roundabout	No traffic control	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	183419	Medical treatment	2009	March	Friday	16	Rear-end	Multi-Vehicle	-28.04392613	153.3885233	Boowaggan Rd	Robina Parkway	Local	Intersection - Roundabout	Give way sign	80 - 90 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	221705	Medical treatment	2010	July	Friday	7	Rear-end	Multi-Vehicle	-27.59826737	153.0357418	Bradman St	Learyod Rd	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Wet	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	93457	Medical treatment	2005	February	Monday	17	Rear-end	Multi-Vehicle	-23.12824107	150.7398708	Braithwaite St	James St	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	44222	Medical treatment	2003	March	Monday	16	Rear-end	Multi-Vehicle	-27.70384859	153.2021758	Brigade Dr	Pacific Hwy Off Ramp	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Grade	Veh'S Same Direction: Rear End
2	24393	Minor injury	2002	February	Wednesday	17	Rear-end	Multi-Vehicle	-27.30887353	152.9904343	Brisbane - Woodford Rd	Dixon St	State	Intersection - Roundabout	No traffic control	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	112570	Minor injury	2005	December	Friday	21	Rear-end	Multi-Vehicle	-27.30877999	152.9905779	Brisbane - Woodford Rd	Dixon St	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Darkness - Lighted	Straight	Level	Veh'S Same Direction: Rear End
2	148282	Medical treatment	2007	March	Monday	16	Rear-end	Multi-Vehicle	-27.67561281	153.0778026	Browns Plains Rd	Magnesium Dr	Local	Intersection - Roundabout	Give way sign	70 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	29587	Medical treatment	2002	March	Tuesday	15	Rear-end	Multi-Vehicle	-27.67563836	153.0777833	Browns Plains Rd	Magnesium Dr	Local	Intersection - Roundabout	Give way sign	70 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	79885	Medical treatment	2004	July	Thursday	12	Rear-end	Multi-Vehicle	-27.67565551	153.0777954	Browns Plains Rd	Magnesium Dr	Local	Intersection - Roundabout	Give way sign	80 - 90 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	30077	Medical treatment	2002	March	Tuesday	9	Rear-end	Multi-Vehicle	-23.41545271	150.4978215	Bruce Hwy	Capricorn Hwy	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	78495	Property damage only	2004	July	Thursday	17	Rear-end	Multi-Vehicle	-23.41537971	150.4976981	Bruce Hwy	Capricorn Hwy	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	117456	Hospitalisation	2006	May	Monday	8	Rear-end	Multi-Vehicle	-23.41532551	150.4976224	Bruce Hwy	Capricorn Hwy	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	124236	Property damage only	2006	June	Friday	19	Rear-end	Multi-Vehicle	-23.41387244	150.4968552	Bruce Hwy	Capricorn Hwy	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Darkness - Lighted	Curved - view open	Level	Veh'S Same Direction: Rear End
2	164571	Medical treatment	2007	July	Saturday	8	Rear-end	Multi-Vehicle	-23.41533844	150.4977709	Bruce Hwy	Capricorn Hwy	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Curved - view open	Level	Veh'S Same Direction: Rear End
2	185600	Property damage only	2010	March	Saturday	10	Rear-end	Multi-Vehicle	-23.4153032	150.4977923	Bruce Hwy	Capricorn Hwy	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	89349	Property damage only	2005	February	Sunday	14	Rear-end	Multi-Vehicle	-23.41382383	150.4988811	Bruce Hwy	Capricorn Hwy	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	127951	Property damage only	2006	July	Wednesday	17	Rear-end	Multi-Vehicle	-23.41390871	150.4967788	Bruce Hwy	Capricorn Hwy	State	Intersection - Roundabout	Give way sign	70 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	205332	Medical treatment	2009	November	Tuesday	8	Rear-end	Multi-Vehicle	-23.4137227	150.4969936	Bruce Hwy	Capricorn Hwy	State	Intersection - Roundabout	Give way sign	80 - 90 km/h	Sealed - Dry	Clear	Daylight	Straight	Grade	Veh'S Same Direction: Rear End
2	98289	Minor injury	2005	May	Tuesday	8	Rear-end	Multi-Vehicle	-19.31771989	146.7926712	Bruce Hwy	Macarthur Dr	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Grade	Veh'S Same Direction: Rear End
2	163762	Medical treatment	2007	December	Tuesday	14	Rear-end	Multi-Vehicle	-19.31770873	146.7822079	Bruce Hwy	Macarthur Dr	State	Intersection - Roundabout	Give way sign	80 - 90 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	177876	Property damage only	2010	April	Wednesday	8	Rear-end	Multi-Vehicle	-19.31791223	146.7929332	Bruce Hwy	Macarthur Dr	State	Intersection - Roundabout	Give way sign	80 - 90 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	212121	Medical treatment	2010	November	Monday	10	Rear-end	Multi-Vehicle	-19.31763023	146.7925262	Bruce Hwy	Macarthur Dr	State	Intersection - Roundabout	Give way sign	80 - 90 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	174284	Hospitalisation	2008	December	Wednesday	14	Rear-end	Multi-Vehicle	-19.31778023	146.7927222	Bruce Hwy	Macarthur Dr	State	Intersection - Roundabout	Give way sign	80 - 90 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	217156	Minor injury	2009	August	Saturday	10	Rear-end	Multi-Vehicle	-19.26707016	146.7485845	Bruce Hwy	Mather St	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	111685	Minor injury	2005	October	Thursday	10	Rear-end	Multi-Vehicle	-19.26715734	146.7486719	Bruce Hwy	Mather St	State	Intersection - Roundabout	Give way sign	80 - 90 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	186062	Minor injury	2009	May	Monday	15	Rear-end	Multi-Vehicle	-19.26706147	146.7485322	Bruce Hwy	Mather St	State	Intersection - Roundabout	Give way sign	80 - 90 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	78538	Property damage only	2004	July	Friday	8	Rear-end	Multi-Vehicle	-19.26823314	146.7602069	Bruce Hwy	Woolcock St	State	Intersection - Roundabout	No traffic control	70 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	141749	Property damage only	2007	November	Sunday	11	Rear-end	Multi-Vehicle	-19.31682776	146.7652265	Bruce Hwy	Yolanda Dr	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Curved - view open	Level	Veh'S Same Direction: Rear End
2	122545	Hospitalisation	2006	March	Thursday	10	Rear-end	Multi-Vehicle	-26.48763547	152.9463554	Bruce Hwy Off Ramp	Eumundi - Noosa Rd	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	237190	Property damage only	2010	August	Thursday	8	Rear-end	Multi-Vehicle	-25.51901686	152.6882182	Bruce Hwy Off Ramp	Maryborough - Biggenden Rd	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	4539	Minor injury	2001	May	Wednesday	16	Rear-end	Multi-Vehicle	-26.67316298	152.9992405	Bruce Hwy Off Ramp	Nambour Connection Rd	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Curved - view open	Level	Veh'S Same Direction: Rear End
2	211851	Medical treatment	2010	October	Monday	3	Rear-end	Multi-Vehicle	-26.67392165	152.9996814	Bruce Hwy On Ramp	Maroochydore Rd	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Darkness - Lighted	Curved - view open	Level	Veh'S Same Direction: Rear End
2	14696	Property damage only	2001	August	Thursday	7	Rear-end	Multi-Vehicle	-26.61539632	152.9802921	Bruce Hwy On Ramp	Nambour - Bli Bli Rd	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	220847	Minor injury	2009	September	Saturday	10	Rear-end	Multi-Vehicle	-26.67325478	152.9977502	Bruce Hwy On Ramp	Nambour Connection Rd	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	179292	Property damage only	2008	May	Wednesday	13	Rear-end	Multi-Vehicle	-26.67322459	152.9977245	Bruce Hwy On Ramp	Nambour Connection Rd	State	Intersection - Roundabout	Give way sign	80 - 90 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	125650	Property damage only	2006	June	Wednesday	11	Rear-end	Multi-Vehicle	-27.10834862	152.9686545	Buchanan Rd	Weier Rd	Local	Intersection - Roundabout	No traffic control	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	16447	Medical treatment	2001	September	Thursday	8	Rear-end	Multi-Vehicle	-27.10932485	152.9490395	Burpengary - Caboolture Rd	Morayfield Station Rd	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	101852	Minor injury	2005	March	Tuesday	8	Rear-end	Multi-Vehicle	-27.10891271	152.9489659	Burpengary - Caboolture Rd	Morayfield Station Rd	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Grade	Veh'S Same Direction: Rear End
2	47523	Medical treatment	2003	March	Friday	23	Rear-end	Multi-Vehicle	-27.10930401	152.9490317	Burpengary - Caboolture Rd	Morayfield Station Rd	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Wet	Raining	Darkness - Lighted	Straight	Level	Veh'S Same Direction: Rear End
2	124524	Medical treatment	2006	December	Thursday	15	Rear-end	Multi-Vehicle	-27.10936218	152.9489761	Burpengary - Caboolture Rd	Station Rd	State	Intersection - Roundabout	No traffic control	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	133793	Hospitalisation	2006	December	Saturday	12	Rear-end	Multi-Vehicle	-27.10893775	152.9489713	Burpengary - Caboolture Rd	Station Rd	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	175472	Property damage only	2008	November	Monday	9	Rear-end	Multi-Vehicle	-27.109089	152.9491718	Burpengary - Caboolture Rd	Station Rd	State	Intersection - Roundabout	No traffic control	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Dip	Veh'S Same Direction: Rear End
2	130923	Minor injury	2006	December	Friday	7	Rear-end	Multi-Vehicle	-27.10888747	152.9488849	Burpengary - Caboolture Rd	Station Rd	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Wet	Raining	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	142093	Medical treatment	2006	December	Wednesday	18	Rear-end	Multi-Vehicle	-27.10932709	152.9490592	Burpengary - Caboolture Rd	Station Rd	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Wet	Raining	Darkness - Lighted	Straight	Level	Veh'S Same Direction: Rear End
2	166411	Medical treatment	2008	January	Thursday	21	Rear-end	Multi-Vehicle	-27.10933906	152.9489786	Burpengary - Caboolture Rd	Station Rd	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Wet	Raining	Darkness - Lighted	Straight	Dip	Veh'S Same Direction: Rear End
2	233915	Property damage only	2010	April	Tuesday	9	Rear-end	Multi-Vehicle	-27.17629955	152.9541955	Burpengary Rd	New Settlement Rd	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Wet	Clear	Daylight	Straight	Grade	Veh'S Same Direction: Rear End
2	33569	Medical treatment	2002	September	Sunday	13	Rear-end	Multi-Vehicle	-27.17651243	152.9534737	Burpengary Rd	New Settlement Rd	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Curved - view open	Grade	Veh'S Same Direction: Rear End
2	152620	Medical treatment	2008	June	Saturday	14	Rear-end	Multi-Vehicle	-27.1761197	152.9536196	Burpengary Rd	New Settlement Rd	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Curved - view open	Level	Veh'S Same Direction: Rear End
2	14950	Minor injury	2001	May	Tuesday	11	Rear-end	Multi-Vehicle	-27.15375282	152.9765344	Burpengary Service Rd	Station Rd	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	163062	Property damage only	2008	March	Monday	13	Rear-end	Multi-Vehicle	-27.15317494	152.9766156	Burpengary Service Rd	Station Rd	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Wet	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	12357	Minor injury	2001	October	Tuesday	13	Rear-end	Multi-Vehicle	-27.07446156	153.1636013	Caboolture - Bribie Island Rd	Kangaroo Ave	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	10011	Property damage only	2001	April	Monday	16	Rear-end	Multi-Vehicle	-27.06463281	153.1552752	Caboolture - Bribie Island Rd	Sunderland Dr	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	135307	Minor injury	2006	December	Wednesday	17	Rear-end	Multi-Vehicle	-16.84758731	145.6964548	Cairns Western Arterial Rd	Captain Cook Hwy	State	Intersection - Roundabout	No traffic control	60 km/h	Sealed - Dry	Clear	Daylight	Curved - view obscured	Level	Veh'S Same Direction: Rear End
2	133700	Minor injury	2007	May	Friday	15	Rear-end	Multi-Vehicle	-16.84770225	145.6974409	Cairns Western Arterial Rd	Captain Cook Hwy	State	Intersection - Roundabout	No traffic control	60 km/h	Sealed - Dry	Clear	Daylight	Curved - view open	Level	Veh'S Same Direction: Rear End
2	69987	Medical treatment	2004	March	Wednesday	12	Rear-end	Multi-Vehicle	-16.84684568	145.6969805	Cairns Western Arterial Rd	Captain Cook Hwy	State	Intersection - Roundabout	Give way sign	80 - 90 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	115703	Minor injury	2006	February	Wednesday	16	Rear-end	Multi-Vehicle	-16.84768024	145.6974163	Cairns Western Arterial Rd	Captain Cook Hwy	State	Intersection - Roundabout	Give way sign	80 - 90 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	202455	Minor injury	2009	August	Thursday	10	Rear-end	Multi-Vehicle	-26.7815653	153.0803729	Caloundra - Mooloolaba Rd	Caloundra Rd	State	Intersection - Roundabout	No traffic control	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	4	Medical treatment	2007	February	Monday	6	Rear-end	Multi-Vehicle	-26.79602439	153.109064	Caloundra Rd	Daniel St	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	25879	Medical treatment	2002	June	Wednesday	14	Rear-end	Multi-Vehicle	-26.79588544	153.1088098	Caloundra Rd	Daniel St	State	Intersection - Roundabout	Give way sign	70 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	46431	Medical treatment	2002	October	Tuesday	11	Rear-end	Multi-Vehicle	-26.79601108	153.1089272	Caloundra Rd	Daniel St	State	Intersection - Roundabout	Give way sign	70 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	123622	Property damage only	2006	July	Monday	14	Rear-end	Multi-Vehicle	-26.79609943													

2	200646	Property damage only	2009	August	Monday	12	Rear-end	Multi-Vehicle	-16.8398373	145.6929939	Captain Cook Hwy	Kennedy Hwy	State	Intersection - Roundabout	Give way sign	0 - 50 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	171933	Minor injury	2008	August	Sunday	15	Rear-end	Multi-Vehicle	-16.83981858	145.6929894	Captain Cook Hwy	Kennedy Hwy	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	135371	Property damage only	2007	April	Monday	17	Rear-end	Multi-Vehicle	-16.840433	145.6927013	Captain Cook Hwy	Kennedy Hwy	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	155116	Medical treatment	2007	August	Friday	8	Rear-end	Multi-Vehicle	-16.8399231	145.6924368	Captain Cook Hwy	Kennedy Hwy	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	170006	Medical treatment	2007	October	Wednesday	14	Rear-end	Multi-Vehicle	-16.83981082	145.693003	Captain Cook Hwy	Kennedy Hwy	State	Intersection - Roundabout	No traffic control	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	201961	Medical treatment	2009	November	Wednesday	15	Rear-end	Multi-Vehicle	-16.83985508	145.6930047	Captain Cook Hwy	Kennedy Hwy	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	204442	Medical treatment	2009	December	Friday	15	Rear-end	Multi-Vehicle	-16.84041377	145.6927051	Captain Cook Hwy	Kennedy Hwy	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	218054	Hospitalisation	2009	September	Thursday	8	Rear-end	Multi-Vehicle	-16.84041106	145.6927124	Captain Cook Hwy	Kennedy Hwy	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Curved - view open	Level	Veh'S Same Direction: Rear End
2	232074	Hospitalisation	2011	December	Monday	13	Rear-end	Multi-Vehicle	-16.84072	145.6930012	Captain Cook Hwy	Kennedy Hwy	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	216206	Property damage only	2010	August	Tuesday	17	Rear-end	Multi-Vehicle	-16.840668	145.6928242	Captain Cook Hwy	Kennedy Hwy	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Curved - view open	Level	Veh'S Same Direction: Rear End
2	126633	Property damage only	2006	June	Tuesday	11	Rear-end	Multi-Vehicle	-16.84044145	145.69272	Captain Cook Hwy	Kennedy Hwy	State	Intersection - Roundabout	Give way sign	80 - 90 km/h	Sealed - Dry	Clear	Daylight	Curved - view open	Level	Veh'S Same Direction: Rear End
2	17800	Property damage only	2001	July	Sunday	12	Rear-end	Multi-Vehicle	-16.84020204	145.6927108	Captain Cook Hwy	Kennedy Hwy	State	Intersection - Roundabout	Give way sign	80 - 90 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	153729	Property damage only	2007	September	Sunday	14	Rear-end	Multi-Vehicle	-16.84001993	145.6925161	Captain Cook Hwy	Kennedy Hwy	State	Intersection - Roundabout	No traffic control	80 - 90 km/h	Sealed - Dry	Clear	Daylight	Curved - view open	Level	Veh'S Same Direction: Rear End
2	11549	Property damage only	2001	July	Tuesday	10	Rear-end	Multi-Vehicle	-16.84021697	145.6927106	Captain Cook Hwy	Kennedy Hwy	State	Intersection - Roundabout	Give way sign	80 - 90 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	11564	Property damage only	2001	August	Wednesday	16	Rear-end	Multi-Vehicle	-16.84002306	145.692784	Captain Cook Hwy	Kennedy Hwy	State	Intersection - Roundabout	Give way sign	80 - 90 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	36759	Property damage only	2002	September	Wednesday	8	Rear-end	Multi-Vehicle	-16.84006057	145.692769	Captain Cook Hwy	Kennedy Hwy	State	Intersection - Roundabout	Give way sign	80 - 90 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	75758	Minor injury	2004	February	Thursday	16	Rear-end	Multi-Vehicle	-16.84020946	145.6927281	Captain Cook Hwy	Kennedy Hwy	State	Intersection - Roundabout	Give way sign	80 - 90 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	94179	Minor injury	2004	August	Wednesday	16	Rear-end	Multi-Vehicle	-16.84005872	145.6927747	Captain Cook Hwy	Kennedy Hwy	State	Intersection - Roundabout	Give way sign	80 - 90 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	102442	Medical treatment	2005	July	Thursday	13	Rear-end	Multi-Vehicle	-16.84046264	145.6926989	Captain Cook Hwy	Kennedy Hwy	State	Intersection - Roundabout	No traffic control	80 - 90 km/h	Sealed - Dry	Clear	Daylight	Curved - view open	Level	Veh'S Same Direction: Rear End
2	104487	Property damage only	2005	October	Friday	12	Rear-end	Multi-Vehicle	-16.84038306	145.6927273	Captain Cook Hwy	Kennedy Hwy	State	Intersection - Roundabout	Give way sign	80 - 90 km/h	Sealed - Dry	Clear	Daylight	Curved - view open	Level	Veh'S Same Direction: Rear End
2	133846	Minor injury	2007	June	Tuesday	16	Rear-end	Multi-Vehicle	-16.83977424	145.6929679	Captain Cook Hwy	Kennedy Hwy	State	Intersection - Roundabout	Give way sign	80 - 90 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	166873	Medical treatment	2009	February	Friday	6	Rear-end	Multi-Vehicle	-16.84043701	145.6927089	Captain Cook Hwy	Kennedy Hwy	State	Intersection - Roundabout	Give way sign	80 - 90 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	2094	Property damage only	2001	February	Saturday	14	Rear-end	Multi-Vehicle	-16.84006836	145.6927627	Captain Cook Hwy	Kennedy Hwy	State	Intersection - Roundabout	Give way sign	80 - 90 km/h	Sealed - Wet	Raining	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	3415	Medical treatment	2001	February	Tuesday	14	Rear-end	Multi-Vehicle	-16.84007366	145.692753	Captain Cook Hwy	Kennedy Hwy	State	Intersection - Roundabout	Give way sign	80 - 90 km/h	Sealed - Wet	Raining	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	23476	Minor injury	2002	January	Saturday	17	Rear-end	Multi-Vehicle	-16.84003948	145.6927755	Captain Cook Hwy	Kennedy Hwy	State	Intersection - Roundabout	Give way sign	80 - 90 km/h	Sealed - Wet	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	81268	Property damage only	2004	July	Saturday	14	Rear-end	Multi-Vehicle	-16.84008676	145.6926996	Captain Cook Hwy	Kennedy Hwy	State	Intersection - Roundabout	No traffic control	80 - 90 km/h	Sealed - Wet	Raining	Daylight	Curved - view open	Level	Veh'S Same Direction: Rear End
2	107036	Minor injury	2005	August	Thursday	9	Rear-end	Multi-Vehicle	-16.84035995	145.6926576	Captain Cook Hwy	Kennedy Hwy	State	Intersection - Roundabout	No traffic control	80 - 90 km/h	Sealed - Wet	Raining	Daylight	Curved - view open	Level	Veh'S Same Direction: Rear End
2	109608	Minor injury	2006	January	Monday	16	Rear-end	Multi-Vehicle	-16.83985996	145.6929831	Captain Cook Hwy	Kennedy Hwy	State	Intersection - Roundabout	Give way sign	80 - 90 km/h	Sealed - Wet	Raining	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	15396	Minor injury	2001	August	Sunday	14	Rear-end	Multi-Vehicle	-16.86362917	145.7313766	Captain Cook Hwy	Machans Beach Access Rd	State	Intersection - Roundabout	Give way sign	100 - 110 km/h	Sealed - Dry	Clear	Daylight	Curved - view open	Level	Veh'S Same Direction: Rear End
2	57476	Property damage only	2003	July	Thursday	8	Rear-end	Multi-Vehicle	-16.86369297	145.7313214	Captain Cook Hwy	Machans Beach Access Rd	State	Intersection - Roundabout	Give way sign	100 - 110 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	27028	Hospitalisation	2001	September	Saturday	0	Rear-end	Multi-Vehicle	-16.86380213	145.7314093	Captain Cook Hwy	Machans Beach Access Rd	State	Intersection - Roundabout	Give way sign	80 - 90 km/h	Sealed - Dry	Clear	Darkness - Not lighted	Straight	Level	Veh'S Same Direction: Rear End
2	88681	Medical treatment	2004	October	Friday	8	Rear-end	Multi-Vehicle	-16.86332726	145.7313292	Captain Cook Hwy	Machans Beach Access Rd	State	Intersection - Roundabout	Give way sign	80 - 90 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	193759	Medical treatment	2009	June	Tuesday	11	Rear-end	Multi-Vehicle	-16.82064189	145.6930943	Captain Cook Hwy	Mcgregor Rd	State	Intersection - Roundabout	Give way sign	0 - 50 km/h	Sealed - Dry	Clear	Daylight	Curved - view open	Level	Veh'S Same Direction: Rear End
2	224058	Property damage only	2010	May	Wednesday	17	Rear-end	Multi-Vehicle	-16.82140708	145.6926471	Captain Cook Hwy	Mcgregor Rd	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Dawn/Dusk	Straight	Level	Veh'S Same Direction: Rear End
2	178516	Hospitalisation	2009	February	Friday	14	Rear-end	Multi-Vehicle	-16.82068996	145.6930927	Captain Cook Hwy	Mcgregor Rd	State	Intersection - Roundabout	Give way sign	80 - 90 km/h	Sealed - Dry	Clear	Daylight	Curved - view open	Level	Veh'S Same Direction: Rear End
2	70066	Medical treatment	2004	April	Thursday	17	Rear-end	Multi-Vehicle	-16.82105599	145.6926203	Captain Cook Hwy	Mcgregor Rd	State	Intersection - Roundabout	Give way sign	80 - 90 km/h	Sealed - Dry	Clear	Dawn/Dusk	Straight	Grade	Veh'S Same Direction: Rear End
2	18271	Medical treatment	2001	September	Wednesday	12	Rear-end	Multi-Vehicle	-16.8207	145.6927437	Captain Cook Hwy	Mcgregor Rd	State	Intersection - Roundabout	Give way sign	80 - 90 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	27125	Minor injury	2002	March	Thursday	15	Rear-end	Multi-Vehicle	-16.82084137	145.692763	Captain Cook Hwy	Mcgregor Rd	State	Intersection - Roundabout	Give way sign	80 - 90 km/h	Sealed - Dry	Clear	Daylight	Straight	Grade	Veh'S Same Direction: Rear End
2	45412	Property damage only	2002	December	Saturday	9	Rear-end	Multi-Vehicle	-16.82104516	145.6926208	Captain Cook Hwy	Mcgregor Rd	State	Intersection - Roundabout	Give way sign	80 - 90 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	55054	Property damage only	2003	June	Friday	16	Rear-end	Multi-Vehicle	-16.82085196	145.6926401	Captain Cook Hwy	Mcgregor Rd	State	Intersection - Roundabout	Give way sign	80 - 90 km/h	Sealed - Dry	Clear	Daylight	Curved - view open	Level	Veh'S Same Direction: Rear End
2	76517	Medical treatment	2004	July	Thursday	18	Rear-end	Multi-Vehicle	-16.82085455	145.6926422	Captain Cook Hwy	Mcgregor Rd	State	Intersection - Roundabout	Give way sign	80 - 90 km/h	Sealed - Dry	Clear	Darkness - Lighted	Straight	Level	Veh'S Same Direction: Rear End
2	90660	Minor injury	2004	November	Sunday	10	Rear-end	Multi-Vehicle	-16.82125448	145.6927145	Captain Cook Hwy	Mcgregor Rd	State	Intersection - Roundabout	Give way sign	80 - 90 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	134362	Medical treatment	2006	November	Tuesday	15	Rear-end	Multi-Vehicle	-16.8208375	145.6925357	Captain Cook Hwy	Mcgregor Rd	State	Intersection - Roundabout	Give way sign	80 - 90 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	172070	Minor injury	2008	November	Friday	9	Rear-end	Multi-Vehicle	-16.82116302	145.6927157	Captain Cook Hwy	Mcgregor Rd	State	Intersection - Roundabout	Give way sign	80 - 90 km/h	Sealed - Dry	Clear	Daylight	Curved - view open	Level	Veh'S Same Direction: Rear End
2	170024	Property damage only	2008	August	Wednesday	7	Rear-end	Multi-Vehicle	-16.84014016	145.6931553	Captain Cook Hwy	Mt Milman Dr	State	Intersection - Roundabout	Give way sign	0 - 50 km/h	Sealed - Dry	Clear	Daylight	Curved - view open	Crest	Veh'S Same Direction: Rear End
2	194715	Medical treatment	2009	August	Monday	10	Rear-end	Multi-Vehicle	-16.83986299	145.6929648	Captain Cook Hwy	Mt Milman Dr	State	Intersection - Roundabout	Give way sign	0 - 50 km/h	Sealed - Dry	Clear	Daylight	Curved - view open	Level	Veh'S Same Direction: Rear End
2	193732	Medical treatment	2009	June	Saturday	11	Rear-end	Multi-Vehicle	-16.83985914	145.6930126	Captain Cook Hwy	Mt Milman Dr	State	Intersection - Roundabout	No traffic control	60 km/h	Sealed - Dry	Clear	Daylight	Curved - view open	Level	Veh'S Same Direction: Rear End
2	202354	Medical treatment	2009	August	Friday	11	Rear-end	Multi-Vehicle	-16.8398258	145.6929798	Captain Cook Hwy	Mt Milman Dr	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Curved - view open	Level	Veh'S Same Direction: Rear End
2	130292	Hospitalisation	2007	February	Saturday	10	Rear-end	Multi-Vehicle	-16.83981649	145.6929887	Captain Cook Hwy	Mt Milman Dr	State	Intersection - Roundabout	Give way sign	80 - 90 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	57073	Property damage only	2003	August	Thursday	8	Rear-end	Multi-Vehicle	-16.84004549	145.6927745	Captain Cook Hwy	Mt Milman Dr	State	Intersection - Roundabout	Give way sign	80 - 90 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	103023	Minor injury	2005	July	Saturday	10	Rear-end	Multi-Vehicle	-16.83986458	145.6929872	Captain Cook Hwy	Mt Milman Dr	State	Intersection - Roundabout	Give way sign	80 - 90 km/h	Sealed - Dry	Clear	Daylight	Curved - view open	Level	Veh'S Same Direction: Rear End
2	127666	Property damage only	2006	November	Monday	17	Rear-end	Multi-Vehicle	-16.83984592	145.6930083	Captain Cook Hwy	Mt Milman Dr	State	Intersection - Roundabout	Give way sign	80 - 90 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	133062	Property damage only	2007	January	Tuesday	16	Rear-end	Multi-Vehicle	-16.83983238	145.6929911	Captain Cook Hwy	Mt Milman Dr	State	Intersection - Roundabout	Give way sign	80 - 90 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	136483	Medical treatment	2006	September	Tuesday	8	Rear-end	Multi-Vehicle	-16.83982955	145.6929968	Captain Cook Hwy	Mt Milman Dr	State	Intersection - Roundabout	Give way sign	80 - 90 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	152025	Property damage only	2007	July	Friday	13	Rear-end	Multi-Vehicle	-16.83982051	145.6929815	Captain Cook Hwy	Mt Milman Dr	State	Intersection - Roundabout	Give way sign	80 - 90 km/h	Sealed - Dry	Clear	Daylight	Curved - view open	Level	Veh'S Same Direction: Rear End
2	118264	Property damage only	2006	April	Tuesday	15	Rear-end	Multi-Vehicle	-16.83979674	145.6929808	Captain Cook Hwy	Mt Milman Dr	State	Intersection - Roundabout	Give way sign	80 - 90 km/h	Sealed - Wet	Raining	Daylight	Curved - view open	Level	Veh'S Same Direction: Rear End
2	180614	Medical treatment	2008	November	Saturday	14	Rear-end	Multi-Vehicle	-16.83985001	145.6929704	Captain Cook Hwy	Mt Milman Dr	State	Intersection - Roundabout	Give way sign	80 - 90 km/h	Sealed - Wet	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	196853	Medical treatment	2010	January	Tuesday	11	Rear-end	Multi-Vehicle	-16.7924734	145.6786885	Captain Cook Hwy	Poolwood Rd	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	101790	Medical treatment	2005	June	Tuesday	17	Rear-end	Multi-Vehicle	-16.79247351	145.6786743	Captain Cook Hwy	Poolwood Rd	State	Intersection - Roundabout	Give way sign	80 - 90 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	145969	Hospitalisation	2007	July	Tuesday	13	Rear-end	Multi-Vehicle	-16.79238089	145.6786272	Captain Cook Hwy	Poolwood Rd	State	Intersection - Roundabout	Give way sign	80 - 90 km/h	Sealed - Dry	Clear	Daylight	Curved - view open	Level	Veh'S Same Direction: Rear End
2	172882	Medical treatment	2008	June	Wednesday	17	Rear-end	Multi-Vehicle	-16.79238962	145.6786196	Captain Cook Hwy	Poolwood Rd	State	Intersection - Roundabout	Give way sign	80 - 90 km/h	Sealed - Dry	Clear				

2	193613	Medical treatment	2009	July	Wednesday	15	Rear-end	Multi-Vehicle	-28.08439739	153.3913661	Christine Ave	Scottsdale Dr	Local	Intersection - Roundabout	No traffic control	0 - 50 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	25747	Medical treatment	2002	April	Friday	8	Rear-end	Multi-Vehicle	-28.08453922	153.3914541	Christine Ave	Scottsdale Dr	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	26732	Minor injury	2001	December	Thursday	12	Rear-end	Multi-Vehicle	-28.0845356	153.3914574	Christine Ave	Scottsdale Dr	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Dip	Veh'S Same Direction: Rear End
2	161429	Medical treatment	2006	August	Thursday	20	Rear-end	Multi-Vehicle	-28.08439079	153.3914637	Christine Ave	Scottsdale Dr	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Darkness - Lighted	Curved - view open	Level	Veh'S Same Direction: Rear End
2	168475	Medical treatment	2008	February	Thursday	15	Rear-end	Multi-Vehicle	-27.60945856	152.899348	Church St	Redbank Plains Rd	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Grade	Veh'S Same Direction: Rear End
2	12984	Minor injury	2001	October	Saturday	16	Rear-end	Multi-Vehicle	-27.71612207	153.2022386	City Rd	George St	Local	Intersection - Roundabout	Pedestrian crossing sign	0 - 50 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	21330	Property damage only	2002	February	Wednesday	9	Rear-end	Multi-Vehicle	-27.71597756	153.2020271	City Rd	George St	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	28655	Medical treatment	2002	June	Thursday	15	Rear-end	Multi-Vehicle	-27.71601872	153.2019658	City Rd	George St	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	192318	Medical treatment	2009	September	Wednesday	6	Rear-end	Multi-Vehicle	-27.70669961	153.203118	City Rd	Pacific Hwy Roundabout	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Grade	Veh'S Same Direction: Rear End
2	13596	Minor injury	2001	November	Monday	19	Rear-end	Multi-Vehicle	-27.61791015	152.9727671	College Ave	Glorious Wy	Local	Intersection - Roundabout	Give way sign	0 - 50 km/h	Sealed - Dry	Clear	Darkness - Lighted	Straight	Grade	Veh'S Same Direction: Rear End
2	143145	Property damage only	2007	July	Friday	12	Rear-end	Multi-Vehicle	-17.26207842	145.4769826	Cook St	Kennedy Hwy	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Curved - view open	Level	Veh'S Same Direction: Rear End
2	4115	Medical treatment	2001	May	Wednesday	17	Rear-end	Multi-Vehicle	-27.49762198	152.9753767	Coonan St	Moggill Rd	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Dawn/Dusk	Straight	Level	Veh'S Same Direction: Rear End
2	12238	Medical treatment	2001	August	Tuesday	8	Rear-end	Multi-Vehicle	-27.49699455	152.9742217	Coonan St	Moggill Rd	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	19854	Property damage only	2004	July	Friday	17	Rear-end	Multi-Vehicle	-27.49698786	152.9742322	Coonan St	Moggill Rd	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Darkness - Lighted	Straight	Level	Veh'S Same Direction: Rear End
2	27402	Medical treatment	2002	June	Friday	22	Rear-end	Multi-Vehicle	-27.49752488	152.9752065	Coonan St	Moggill Rd	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Darkness - Lighted	Straight	Level	Veh'S Same Direction: Rear End
2	43047	Medical treatment	2002	November	Wednesday	12	Rear-end	Multi-Vehicle	-27.49695562	152.974258	Coonan St	Moggill Rd	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Curved - view open	Grade	Veh'S Same Direction: Rear End
2	44394	Medical treatment	2003	January	Friday	11	Rear-end	Multi-Vehicle	-27.49709898	152.9740591	Coonan St	Moggill Rd	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	70515	Property damage only	2004	April	Friday	18	Rear-end	Multi-Vehicle	-27.49752748	152.9752113	Coonan St	Moggill Rd	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Dawn/Dusk	Straight	Level	Veh'S Same Direction: Rear End
2	79755	Medical treatment	2004	May	Thursday	8	Rear-end	Multi-Vehicle	-27.49699727	152.9741883	Coonan St	Moggill Rd	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Dip	Veh'S Same Direction: Rear End
2	85566	Medical treatment	2004	October	Thursday	12	Rear-end	Multi-Vehicle	-27.49698509	152.9743056	Coonan St	Moggill Rd	Local	Intersection - Roundabout	No traffic control	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	91795	Property damage only	2005	March	Monday	9	Rear-end	Multi-Vehicle	-27.49697395	152.9742882	Coonan St	Moggill Rd	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Curved - view open	Level	Veh'S Same Direction: Rear End
2	95996	Minor injury	2005	May	Thursday	8	Rear-end	Multi-Vehicle	-27.49698826	152.9743057	Coonan St	Moggill Rd	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Dip	Veh'S Same Direction: Rear End
2	107713	Medical treatment	2005	September	Monday	14	Rear-end	Multi-Vehicle	-27.49703253	152.9743249	Coonan St	Moggill Rd	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Curved - view open	Grade	Veh'S Same Direction: Rear End
2	109156	Property damage only	2005	October	Wednesday	8	Rear-end	Multi-Vehicle	-27.49707786	152.9740741	Coonan St	Moggill Rd	Local	Intersection - Roundabout	No traffic control	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	139126	Property damage only	2007	January	Friday	13	Rear-end	Multi-Vehicle	-27.49707766	152.9740551	Coonan St	Moggill Rd	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	139976	Medical treatment	2006	November	Wednesday	14	Rear-end	Multi-Vehicle	-27.49697728	152.9742661	Coonan St	Moggill Rd	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	155966	Medical treatment	2007	June	Saturday	13	Rear-end	Multi-Vehicle	-27.49698782	152.9742971	Coonan St	Moggill Rd	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	172354	Medical treatment	2008	May	Saturday	12	Rear-end	Multi-Vehicle	-27.49697522	152.9743033	Coonan St	Moggill Rd	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Curved - view open	Level	Veh'S Same Direction: Rear End
2	26696	Minor injury	2002	May	Wednesday	7	Rear-end	Multi-Vehicle	-27.49699355	152.9742376	Coonan St	Moggill Rd	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Wet	Raining	Daylight	Curved - view open	Level	Veh'S Same Direction: Rear End
2	58687	Minor injury	2003	October	Tuesday	13	Rear-end	Multi-Vehicle	-27.49604054	152.9755518	Coonan St	Moggill Rd	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Wet	Raining	Daylight	Curved - view open	Level	Veh'S Same Direction: Rear End
2	201682	Medical treatment	2009	January	Tuesday	13	Rear-end	Multi-Vehicle	-26.39926892	153.0921295	Cooyar St	Lanyana Way	Local	Intersection - Roundabout	Give way sign	0 - 50 km/h	Sealed - Dry	Clear	Daylight	Curved - view open	Grade	Veh'S Same Direction: Rear End
2	100591	Minor injury	2005	March	Friday	16	Rear-end	Multi-Vehicle	-27.98620712	153.3818939	Cotlew St	Labrador - Carrara Rd	Local	Intersection - Roundabout	Give way sign	0 - 50 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	115566	Minor injury	2005	November	Friday	21	Rear-end	Multi-Vehicle	-27.98651527	153.3819171	Cotlew St	Labrador - Carrara Rd	State	Intersection - Roundabout	Give way sign	0 - 50 km/h	Sealed - Dry	Clear	Darkness - Lighted	Straight	Crest	Veh'S Same Direction: Rear End
2	23952	Minor injury	2002	January	Wednesday	17	Rear-end	Multi-Vehicle	-27.98630764	153.3821328	Cotlew St	Labrador - Carrara Rd	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Curved - view open	Level	Veh'S Same Direction: Rear End
2	234911	Hospitalisation	2012	May	Thursday	11	Rear-end	Multi-Vehicle	-27.9865033	153.38228	Cotlew St	Labrador - Carrara Rd	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Grade	Veh'S Same Direction: Rear End
2	18815	Medical treatment	2001	November	Saturday	21	Rear-end	Multi-Vehicle	-27.98642265	153.3820045	Cotlew St	Labrador - Carrara Rd	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Wet	Raining	Darkness - Lighted	Straight	Level	Veh'S Same Direction: Rear End
2	214183	Hospitalisation	2009	December	Sunday	15	Rear-end	Multi-Vehicle	-27.98649008	153.3819149	Cotlew St	Labrador - Carrara Rd	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Wet	Raining	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	74191	Medical treatment	2004	May	Friday	7	Rear-end	Multi-Vehicle	-27.9864439	153.3819924	Cotlew St	Labrador - Carrara Rd	State	Intersection - Roundabout	Give way sign	70 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	197045	Property damage only	2009	July	Thursday	12	Rear-end	Multi-Vehicle	-27.98619913	153.3821834	Cotlew St	Labrador - Carrara Rd	State	Intersection - Roundabout	Give way sign	70 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	222050	Medical treatment	2010	November	Saturday	9	Rear-end	Multi-Vehicle	-27.98802522	153.3930139	Cotlew St	Wardoo St	Local	Intersection - Roundabout	Give way sign	0 - 50 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	108506	Medical treatment	2005	June	Monday	8	Rear-end	Multi-Vehicle	-27.98764462	153.3928826	Cotlew St	Wardoo St	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Grade	Veh'S Same Direction: Rear End
2	228315	Medical treatment	2010	February	Tuesday	10	Rear-end	Multi-Vehicle	-27.98805622	153.3931949	Cotlew St	Wardoo St	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Wet	Raining	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	25788	Medical treatment	2001	December	Tuesday	15	Rear-end	Multi-Vehicle	-27.98798315	153.3928098	Cotlew St	Wardoo St	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Crest	Veh'S Same Direction: Rear End
2	77517	Property damage only	2004	August	Monday	13	Rear-end	Multi-Vehicle	-27.98814573	153.3928341	Cotlew St	Wardoo St	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	208221	Minor injury	2010	January	Tuesday	17	Rear-end	Multi-Vehicle	-27.98822122	153.3928909	Cotlew St	Wardoo St	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Dawn/Dusk	Straight	Level	Veh'S Same Direction: Rear End
2	15217	Property damage only	2001	October	Wednesday	12	Rear-end	Multi-Vehicle	-27.98782711	153.3928658	Cotlew St	Wardoo St	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	110779	Property damage only	2005	June	Monday	16	Rear-end	Multi-Vehicle	-27.98803804	153.3928854	Cotlew St	Wardoo St	Local	Intersection - Roundabout	No traffic control	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	191494	Medical treatment	2010	May	Tuesday	16	Rear-end	Multi-Vehicle	-27.98803122	153.3930119	Cotlew St E	Wardoo St	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Wet	Raining	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	101386	Hospitalisation	2005	June	Tuesday	18	Rear-end	Multi-Vehicle	-27.65428161	152.7766046	Cunningham Hwy Ramp Ea	Ripley Rd	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Darkness - Lighted	Curved - view open	Grade	Veh'S Same Direction: Rear End
2	32878	Hospitalisation	2002	September	Friday	8	Rear-end	Multi-Vehicle	-19.28685621	146.7041009	Dalrymple Rd	Thuringowa Dr	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	44854	Minor injury	2002	November	Tuesday	16	Rear-end	Multi-Vehicle	-23.87014256	151.2406186	Dawson Hwy	Gladstone - Benaraby Rd	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	199397	Medical treatment	2009	October	Tuesday	16	Rear-end	Multi-Vehicle	-23.87039038	151.2407581	Dawson Hwy	Gladstone - Benaraby Rd	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	89041	Medical treatment	2004	November	Monday	19	Rear-end	Multi-Vehicle	-23.87046608	151.2404536	Dawson Hwy	Gladstone - Benaraby Rd	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Darkness - Lighted	Straight	Level	Veh'S Same Direction: Rear End
2	103899	Minor injury	2005	August	Friday	18	Rear-end	Multi-Vehicle	-23.87017969	151.2406408	Dawson Hwy	Gladstone - Benaraby Rd	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Darkness - Lighted	Straight	Level	Veh'S Same Direction: Rear End
2	118159	Hospitalisation	2006	February	Thursday	16	Rear-end	Multi-Vehicle	-23.87011823	151.2406325	Dawson Hwy	Gladstone - Benaraby Rd	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	76308	Medical treatment	2004	January	Wednesday	6	Rear-end	Multi-Vehicle	-23.87050174	151.2404176	Dawson Hwy	Gladstone - Benaraby Rd	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Wet	Raining	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	177527	Medical treatment	2008	July	Tuesday	12	Rear-end	Multi-Vehicle	-23.87705664	151.22332	Dawson Hwy	Harvey Rd	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	131573	Property damage only	2006	December	Wednesday	17	Rear-end	Multi-Vehicle	-23.86284797	151.2433578	Dawson Hwy	Herbertson St	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	381	Minor injury	2004	June	Tuesday	16	Rear-end	Multi-Vehicle	-23.86286195	151.2433611	Dawson Hwy	Herbertson St	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	4075	Medical treatment	2001	January	Friday	15	Rear-end	Multi-Vehicle	-23.86286011	151.2433541	Dawson Hwy	Herbertson St	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	35328	Minor injury	2002	July	Thursday	15	Rear-end	Multi-Vehicle	-23.86286143	151.2433515	Dawson Hwy	Herbertson St	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	190031	Property damage only	2009	May	Thursday	17	Rear-end	Multi-Vehicle	-23.86286494	151.2433302	Dawson Hwy	Herbertson St	State	Intersection - Roundabout	No traffic control	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	

2	160410	Property damage only	2008	December	Saturday	8	Rear-end	Multi-Vehicle	-27.38589892	152.9844721	Everton Park - Albany Creek Rd	Queens Rd	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Wet	Clear	Daylight	Straight	Dip	Veh'S Same Direction: Rear End
2	190743	Hospitalisation	2008	December	Wednesday	16	Rear-end	Multi-Vehicle	-27.3858142	152.9845949	Everton Park - Albany Creek Rd	Queens Rd	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Crest	Veh'S Same Direction: Rear End
2	63872	Property damage only	2003	August	Friday	9	Rear-end	Multi-Vehicle	-27.38573912	152.9846451	Everton Pk - Albany Ck Rd On Ramp	Queens Rd	State	Intersection - Roundabout	No traffic control	60 km/h	Sealed - Wet	Raining	Daylight	Straight	Grade	Veh'S Same Direction: Rear End
2	132691	Medical treatment	2006	July	Saturday	10	Rear-end	Multi-Vehicle	-27.38590937	152.9844586	Everton Pk - Albany Ck Rd On Ramp	Queens Rd	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Wet	Raining	Daylight	Curved - view open	Grade	Veh'S Same Direction: Rear End
2	36263	Minor injury	2002	September	Sunday	21	Rear-end	Multi-Vehicle	-27.51258255	153.021424	Fairfield Rd	Venner Rd	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Darkness - Lighted	Straight	Level	Veh'S Same Direction: Rear End
2	217084	Hospitalisation	2010	April	Tuesday	19	Rear-end	Multi-Vehicle	-27.51243749	153.0217833	Fairfield Rd	Venner Rd	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Wet	Clear	Darkness - Lighted	Curved - view open	Grade	Veh'S Same Direction: Rear End
2	34478	Medical treatment	2002	August	Tuesday	13	Rear-end	Multi-Vehicle	-27.60681214	152.9246234	Formation St	Logan Mwy Ramp Ja	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Wet	Raining	Daylight	Curved - view open	Level	Veh'S Same Direction: Rear End
2	212108	Medical treatment	2009	December	Thursday	16	Rear-end	Multi-Vehicle	-27.60878094	152.9227255	Formation St	Mica St	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Curved - view open	Crest	Veh'S Same Direction: Rear End
2	40648	Medical treatment	2002	October	Wednesday	13	Rear-end	Multi-Vehicle	-27.47805401	152.9850088	Frederick St	Milton Rd	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	30850	Medical treatment	2002	April	Wednesday	16	Rear-end	Multi-Vehicle	-27.47836739	152.9853151	Frederick St	Mt Coot-Tha Rd	State	Intersection - Roundabout	No traffic control	60 km/h	Sealed - Dry	Clear	Daylight	Curved - view open	Level	Veh'S Same Direction: Rear End
2	162585	Property damage only	2007	November	Friday	13	Rear-end	Multi-Vehicle	-19.28988306	146.7399329	Garbutt - Upper Ross Rd	Greenwood Dr	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	101690	Minor injury	2005	May	Sunday	10	Rear-end	Multi-Vehicle	-19.29560716	146.7365909	Garbutt - Upper Ross Rd	Greenwood Dr	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	110947	Property damage only	2005	November	Friday	18	Rear-end	Multi-Vehicle	-19.2898828	146.7399298	Garbutt - Upper Ross Rd	Greenwood Dr	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Dawn/Dusk	Straight	Level	Veh'S Same Direction: Rear End
2	112538	Property damage only	2005	November	Monday	21	Rear-end	Multi-Vehicle	-19.2899206	146.7399152	Garbutt - Upper Ross Rd	Greenwood Dr	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Darkness - Lighted	Straight	Level	Veh'S Same Direction: Rear End
2	114927	Minor injury	2005	December	Saturday	17	Rear-end	Multi-Vehicle	-19.28992161	146.739929	Garbutt - Upper Ross Rd	Greenwood Dr	State	Intersection - Roundabout	No traffic control	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	158082	Property damage only	2007	December	Sunday	17	Rear-end	Multi-Vehicle	-19.30911975	146.7318814	Garbutt - Upper Ross Rd	Hinchinbrook Dr	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	49711	Property damage only	2003	March	Thursday	12	Rear-end	Multi-Vehicle	-19.30806783	146.7325028	Garbutt - Upper Ross Rd	Hudson St	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	68497	Property damage only	2004	April	Sunday	10	Rear-end	Multi-Vehicle	-19.30775834	146.7328294	Garbutt - Upper Ross Rd	Hudson St	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	162547	Property damage only	2007	August	Friday	13	Rear-end	Multi-Vehicle	-19.30775251	146.7328301	Garbutt - Upper Ross Rd	Hudson St	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	115365	Property damage only	2006	January	Thursday	7	Rear-end	Multi-Vehicle	-19.30801591	146.7325509	Garbutt - Upper Ross Rd	Hudson St	State	Intersection - Roundabout	No traffic control	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	179276	Medical treatment	2008	July	Monday	12	Rear-end	Multi-Vehicle	-19.30800894	146.732531	Garbutt - Upper Ross Rd	Hudson St	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	212141	Minor injury	2010	May	Wednesday	18	Rear-end	Multi-Vehicle	-19.29274528	146.7381988	Garbutt - Upper Ross Rd	Mill Dr	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Dawn/Dusk	Straight	Level	Veh'S Same Direction: Rear End
2	158186	Hospitalisation	2008	September	Thursday	16	Rear-end	Multi-Vehicle	-19.2925653	146.7384318	Garbutt - Upper Ross Rd	Mill Dr	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End

2	154359	Minor injury	2007	August	Sunday	13	Rear-end	Multi-Vehicle	-19.30218617	146.7353054	Garbutt - Upper Ross Rd	Tavern St	State	Intersection - Roundabout	No traffic control	60 km/h	Sealed - Wet	Raining	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	167205	Minor injury	2008	February	Saturday	17	Rear-end	Multi-Vehicle	-19.30156837	146.7355563	Garbutt - Upper Ross Rd	Tavern St	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Wet	Raining	Dawn/Dusk	Straight	Level	Veh'S Same Direction: Rear End
2	169700	Hospitalisation	2008	August	Wednesday	10	Rear-end	Multi-Vehicle	-27.71591108	153.2020465	George St	James St	Local	Intersection - Roundabout	No traffic control	0 - 50 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	30021	Medical treatment	2002	March	Saturday	18	Rear-end	Multi-Vehicle	-26.79855106	153.1329443	George St	Regent St	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Wet	Raining	Darkness - Lighted	Straight	Grade	Veh'S Same Direction: Rear End
2	48908	Medical treatment	2003	April	Saturday	18	Rear-end	Multi-Vehicle	-26.40057879	153.0661928	Gibson Rd	Mary St	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Wet	Raining	Darkness - Lighted	Straight	Level	Veh'S Same Direction: Rear End
2	23901	Medical treatment	2002	January	Friday	8	Rear-end	Multi-Vehicle	-26.40155954	153.061457	Gibson Rd	Thomas St	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	110652	Minor injury	2006	January	Tuesday	6	Rear-end	Multi-Vehicle	-26.40167453	153.0618553	Gibson Rd	Thomas St	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Wet	Raining	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	219949	Hospitalisation	2010	March	Tuesday	18	Rear-end	Multi-Vehicle	-28.02113484	153.3101434	Gilston Rd	Longhill Rd	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Wet	Raining	Darkness - Lighted	Straight	Level	Veh'S Same Direction: Rear End
2	231625	Minor injury	2010	November	Thursday	20	Rear-end	Multi-Vehicle	-28.00650979	153.3185582	Gilston Rd	Riverpark Dr	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Darkness - Lighted	Straight	Grade	Veh'S Same Direction: Rear End
2	69479	Medical treatment	2003	December	Sunday	17	Rear-end	Multi-Vehicle	-23.87365933	151.2609258	Gladstone - Benaraby Rd	Gladstone - Mt Larcom Rd	State	Intersection - Roundabout	No traffic control	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	53613	Medical treatment	2003	January	Saturday	14	Rear-end	Multi-Vehicle	-23.87406741	151.2613217	Gladstone - Benaraby Rd	Gladstone - Mt Larcom Rd	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	34198	Medical treatment	2002	May	Tuesday	15	Rear-end	Multi-Vehicle	-23.87376904	151.2611005	Gladstone - Benaraby Rd	Gladstone - Mt Larcom Rd	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Wet	Raining	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	11897	Medical treatment	2001	October	Tuesday	15	Rear-end	Multi-Vehicle	-23.87407315	151.2613104	Gladstone - Benaraby Rd	Glenlyon Rd	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Grade	Veh'S Same Direction: Rear End
2	222178	Minor injury	2010	December	Thursday	16	Rear-end	Multi-Vehicle	-23.8741121	151.2613243	Gladstone - Benaraby Rd	Glenlyon Rd	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	148590	Property damage only	2007	September	Friday	9	Rear-end	Multi-Vehicle	-27.54715426	152.9423197	Glen Ross Rd	Western Art Rd Ramp Ba	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Grade	Veh'S Same Direction: Rear End
2	167823	Medical treatment	2008	February	Friday	15	Rear-end	Multi-Vehicle	-27.54752505	152.9424578	Glen Ross Rd	Western Art Rd Ramp Bb	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	67510	Minor injury	2003	November	Saturday	10	Rear-end	Multi-Vehicle	-28.03238897	153.3858563	Gold Coast - Springbrook Rd	Nerang - Broadbeach Rd	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	137577	Medical treatment	2004	May	Friday	7	Rear-end	Multi-Vehicle	-28.03198967	153.3863749	Gold Coast - Springbrook Rd	Nerang - Broadbeach Rd	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	137721	Minor injury	2007	April	Friday	7	Rear-end	Multi-Vehicle	-28.03269521	153.3849211	Gold Coast - Springbrook Rd	Nerang - Broadbeach Rd	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	175589	Property damage only	2009	February	Friday	17	Rear-end	Multi-Vehicle	-28.03202478	153.3864334	Gold Coast - Springbrook Rd	Nerang - Broadbeach Rd	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	196637	Minor injury	2009	November	Sunday	10	Rear-end	Multi-Vehicle	-28.03249173	153.3852141	Gold Coast - Springbrook Rd	Nerang - Broadbeach Rd	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	196642	Medical treatment	2009	August	Monday	15	Rear-end	Multi-Vehicle	-28.03261555	153.3851566	Gold Coast - Springbrook Rd	Nerang - Broadbeach Rd	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	199578	Hospitalisation	2009	September	Tuesday	16	Rear-end	Multi-Vehicle	-28.03262609	153.3851597	Gold Coast - Springbrook Rd	Nerang - Broadbeach Rd	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	131350	Medical treatment	2006	November	Tuesday	17	Rear-end	Multi-Vehicle	-28.03253891	153.3868561	Gold Coast - Springbrook Rd	Nerang - Broadbeach Rd	State	Intersection - Roundabout	No traffic control	60 km/h	Sealed - Dry	Clear	Daylight	Curved - view open	Level	Veh'S Same Direction: Rear End
2	226534	Minor injury	2010	April	Saturday	21	Rear-end	Multi-Vehicle	-28.03253324	153.3868913	Gold Coast - Springbrook Rd	Nerang - Broadbeach Rd	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Darkness - Lighted	Curved - view open	Level	Veh'S Same Direction: Rear End
2	228491	Medical treatment	2010	August	Thursday	7	Rear-end	Multi-Vehicle	-28.03256624	153.3868703	Gold Coast - Springbrook Rd	Nerang - Broadbeach Rd	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Curved - view open	Level	Veh'S Same Direction: Rear End
2	235083	Hospitalisation	2012	July	Wednesday	23	Rear-end	Multi-Vehicle	-28.03254524	153.3868783	Gold Coast - Springbrook Rd	Nerang - Broadbeach Rd	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Darkness - Lighted	Straight	Level	Veh'S Same Direction: Rear End
2	107164	Minor injury	2005	May	Thursday	15	Rear-end	Multi-Vehicle	-28.03195686	153.3863546	Gold Coast - Springbrook Rd	Nerang - Broadbeach Rd	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Wet	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	222324	Medical treatment	2010	January	Tuesday	15	Rear-end	Multi-Vehicle	-28.03261724	153.3848404	Gold Coast - Springbrook Rd	Nerang - Broadbeach Rd	State	Intersection - Roundabout	Give way sign	70 km/h	Sealed - Dry	Clear	Daylight	Curved - view open	Level	Veh'S Same Direction: Rear End
2	107771	Minor injury	2005	October	Monday	18	Rear-end	Multi-Vehicle	-28.03236387	153.386933	Gold Coast - Springbrook Rd	Nerang - Broadbeach Rd	State	Intersection - Roundabout	Give way sign	70 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	109228	Property damage only	2005	October	Monday	20	Rear-end	Multi-Vehicle	-28.03261681	153.3867901	Gold Coast - Springbrook Rd	Nerang - Broadbeach Rd	State	Intersection - Roundabout	Give way sign	70 km/h	Sealed - Dry	Clear	Darkness - Lighted	Straight	Level	Veh'S Same Direction: Rear End
2	84783	Minor injury	2004	September	Monday	15	Rear-end	Multi-Vehicle	-28.03241904	153.3860203	Gold Coast - Springbrook Rd	Robina Parkway	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	213714	Medical treatment	2009	November	Monday	10	Rear-end	Multi-Vehicle	-28.03262033	153.3851641	Gold Coast - Springbrook Rd	Robina Parkway	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	90177	Medical treatment	2004	October	Thursday	16	Rear-end	Multi-Vehicle	-28.0325152	153.3867872	Gold Coast - Springbrook Rd	Robina Parkway	State	Intersection - Roundabout	No traffic control	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	62618	Property damage only	2003	August	Thursday	15	Rear-end	Multi-Vehicle	-28.0325005	153.3858756	Gold Coast - Springbrook Rd	Robina Parkway	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	127097	Medical treatment	2007	January	Saturday	13	Rear-end	Multi-Vehicle	-28.03318163	153.3855642	Gold Coast - Springbrook Rd	Robina Parkway	State	Intersection - Roundabout	No traffic control	60 km/h	Sealed - Dry	Clear	Daylight	Curved - view open	Level	Veh'S Same Direction: Rear End
2	206649	Minor injury	2010	December	Saturday	16	Rear-end	Multi-Vehicle	-28.03314125	153.3856674	Gold Coast - Springbrook Rd	Robina Parkway	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	93571	Medical treatment	2005	March	Thursday	13	Rear-end	Multi-Vehicle	-28.03248851	153.3852879	Gold Coast - Springbrook Rd	Robina Parkway	State	Intersection - Roundabout	Give way sign	70 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	94909	Medical treatment	2004	April	Sunday	14	Rear-end	Multi-Vehicle	-28.03352475	153.385546	Gold Coast - Springbrook Rd	Robina Parkway	State	Intersection - Roundabout	Give way sign	70 km/h	Sealed - Dry	Clear	Daylight	Curved - view open	Level	Veh'S Same Direction: Rear End
2	142469	Minor injury	2007	February	Friday	15	Rear-end	Multi-Vehicle	-28.03313467	153.385514	Gold Coast - Springbrook Rd	Robina Parkway	State	Intersection - Roundabout	Give way sign	70 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	208637	Property damage only	2010	November	Tuesday	9	Rear-end	Multi-Vehicle	-28.03305424	153.3855014	Gold Coast - Springbrook Rd	Robina Parkway	State	Intersection - Roundabout	Give way sign	70 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	213168	Minor injury	2010	November	Tuesday	7	Rear-end	Multi-Vehicle	-27.72528335	153.0321328	Granger Rd	Mt Lindesay Hwy On Ramp	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Curved - view open	Grade	Veh'S Same Direction: Rear End
2	141570	Medical treatment	2007	June	Tuesday	15	Rear-end	Multi-Vehicle	-27.38522545	153.0216106	Hamilton Rd	Webster Rd	Local	Intersection - Roundabout	Give way sign	0 - 50 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	93126	Medical treatment	2005	January	Thursday	15	Rear-end	Multi-Vehicle	-27.38525438	153.0215516	Hamilton Rd	Webster Rd	Local	Intersection - Roundabout	Give way sign	0 - 50 km/h	Sealed - Wet	Raining	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	36472	Hospitalisation	2002	October	Monday	17	Rear-end	Multi-Vehicle	-27.38459453	153.0220081	Hamilton Rd	Webster Rd	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	169038	Minor injury	2008	September	Thursday	15	Rear-end	Multi-Vehicle	-27.38472748	153.0226021	Hamilton Rd	Webster Rd	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	40286	Minor injury	2002	October	Tuesday	10	Rear-end	Multi-Vehicle	-27.38421123	153.0219386	Hamilton Rd	Webster Rd	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	220065	Minor injury	2010	September	Friday	18	Rear-end	Multi-Vehicle	-27.3844617	153.0213051	Hamilton Rd	Webster Rd	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Darkness - Lighted	Straight	Level	Veh'S Same Direction: Rear End
2	119106	Property damage only	2006	March	Friday	7	Rear-end	Multi-Vehicle	-27.3843999	153.0212777	Hamilton Rd	Webster Rd	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	24185	Medical treatment	2001	September	Wednesday	15	Rear-end	Multi-Vehicle	-27.38457972	153.0220427	Hamilton Rd	Webster Rd	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	53821	Medical treatment	2003	February	Monday	7	Rear-end	Multi-Vehicle	-27.3842973	153.0219247	Hamilton Rd	Webster Rd	Local	Intersection - Roundabout	No traffic control	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	74832	Medical treatment	2004	June	Wednesday	16	Rear-end	Multi-Vehicle	-27.38430799	153.0219293	Hamilton Rd	Webster Rd	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	91545	Medical treatment	2004	December	Tuesday	12	Rear-end	Multi-Vehicle	-27.38473072	153.0226097	Hamilton Rd	Webster Rd	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	130383	Medical treatment	2006	July	Wednesday	7	Rear-end	Multi-Vehicle	-27.38470889	153.0225973	Hamilton Rd	Webster Rd	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	169956	Medical treatment	2008	February	Sunday	12	Rear-end	Multi-Vehicle	-27.38470182	153.0225583	Hamilton Rd	Webster Rd	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	178045	Minor injury	2008	July	Sunday	15	Rear-end	Multi-Vehicle	-27.38471652	153.0225475	Hamilton Rd	Webster Rd	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	179911	Medical treatment	2008	September	Wednesday	11	Rear-end	Multi-Vehicle	-27.38378839	153.0221116	Hamilton Rd	Webster Rd	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	179976	Hospitalisation	2009	January	Friday	17	Rear-end	Multi-Vehicle	-27.38470002	153.0225416	Hamilton Rd	Webster Rd	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Curved - view open	Level	Veh'S Same Direction: Rear End
2	189373	Minor injury	2009	May	Saturday	11	Rear-end	Multi-Vehicle	-27.38380611	153.0222014	Hamilton Rd	Webster Rd	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	212881	Minor injury	2010	April	Tuesday	16	Rear-end	Multi-Vehicle	-27.38465569	153.0225301	Hamilton Rd	Webster Rd	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	234641	Hospitalisation	2012	May	Wednesday	18	Rear-end	Multi-Vehicle	-27.38466368	153.0225621	Hamilton Rd	Webster Rd	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Dawn/Dusk	Curved - view open	Level	Veh'S Same Direction: Rear End
2	1084	Property damage only	2001	January	Tuesday	12	Rear-end	Multi-Vehicle	-27.38444784	153.0216286	Hamilton											

2	160730	Minor injury	2007	October	Wednesday	22	Rear-end	Multi-Vehicle	-27.97681668	153.3885966	Hinde St	State	Intersection - Roundabout	Give way sign	70 km/h	Sealed - Wet	Raining	Darkness - Lighted	Straight	Level	Veh'S Same Direction: Rear End
2	148384	Property damage only	2007	September	Tuesday	19	Rear-end	Multi-Vehicle	-21.09997884	149.1600342	Holts Rd	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Wet	Raining	Darkness - Lighted	Straight	Level	Veh'S Same Direction: Rear End
2	52183	Medical treatment	2003	January	Tuesday	17	Rear-end	Multi-Vehicle	-21.09997461	149.1600217	Holts Rd	State	Intersection - Roundabout	Give way sign	80 - 90 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	143081	Medical treatment	2006	August	Monday	10	Rear-end	Multi-Vehicle	-27.91248171	153.3890854	Hope Island Rd	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	129630	Hospitalisation	2006	June	Tuesday	15	Rear-end	Multi-Vehicle	-27.91275575	153.3892813	Hope Island Rd	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	200926	Medical treatment	2010	September	Wednesday	1	Rear-end	Multi-Vehicle	-27.91282933	153.3890262	Hope Island Rd	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Darkness - Lighted	Straight	Level	Veh'S Same Direction: Rear End
2	158692	Medical treatment	2008	September	Saturday	8	Rear-end	Multi-Vehicle	-27.88084638	153.3323666	Hope Island Rd	State	Intersection - Roundabout	Road/Rail worker	0 - 50 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	152229	Minor injury	2007	November	Wednesday	14	Rear-end	Multi-Vehicle	-27.88094428	153.3324361	Hope Island Rd	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	135899	Minor injury	2006	September	Tuesday	8	Rear-end	Multi-Vehicle	-27.87020654	153.3514338	Hope Island Rd	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	179394	Property damage only	2008	August	Friday	15	Rear-end	Multi-Vehicle	-27.87021324	153.3514288	Hope Island Rd	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	179496	Medical treatment	2008	August	Monday	8	Rear-end	Multi-Vehicle	-27.87737952	153.3612758	Hope Island Rd	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	238248	Medical treatment	2010	September	Friday	6	Rear-end	Multi-Vehicle	-27.87257278	153.3456034	Hope Island Rd	State	Intersection - Roundabout	Give way sign	70 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	13794	Minor injury	2001	July	Monday	17	Rear-end	Multi-Vehicle	-27.6515802	153.070968	Illaweena St	Local	Intersection - Roundabout	Give way sign	70 km/h	Sealed - Dry	Clear	Dawn/Dusk	Curved - view open	Grade	Veh'S Same Direction: Rear End
2	216919	Minor injury	2010	April	Thursday	13	Rear-end	Multi-Vehicle	-28.07570728	153.3791838	Investigator Dr	Local	Intersection - Roundabout	Give way sign	0 - 50 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	35902	Minor injury	2002	August	Friday	11	Rear-end	Multi-Vehicle	-27.62726695	152.7597586	Ipswich - Cunningham Hwy Connection Rd	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	42025	Property damage only	2002	December	Tuesday	15	Rear-end	Multi-Vehicle	-27.62726077	152.7597658	Ipswich - Cunningham Hwy Connection Rd	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Curved - view open	Level	Veh'S Same Direction: Rear End
2	229249	Minor injury	2010	December	Wednesday	8	Rear-end	Multi-Vehicle	-27.62726638	152.759672	Ipswich - Cunningham Hwy Connection Rd	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Curved - view open	Dip	Veh'S Same Direction: Rear End
2	89804	Medical treatment	2005	February	Tuesday	8	Rear-end	Multi-Vehicle	-27.60863875	152.7616538	Ipswich - Warrego Hwy Connection Rd	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	165645	Hospitalisation	2009	February	Thursday	19	Rear-end	Multi-Vehicle	-27.60853993	152.7615834	Ipswich - Warrego Hwy Connection Rd	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Darkness - Lighted	Straight	Level	Veh'S Same Direction: Rear End
2	208923	Hospitalisation	2009	May	Saturday	9	Rear-end	Multi-Vehicle	-26.77523586	153.1120188	Kalana Rd	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	154767	Property damage only	2006	July	Monday	7	Rear-end	Multi-Vehicle	-26.71409442	153.111623	Kawana Wy	State	Intersection - Roundabout	No traffic control	70 km/h	Sealed - Wet	Clear	Daylight	Straight	Grade	Veh'S Same Direction: Rear End
2	147083	Property damage only	2007	September	Wednesday	16	Rear-end	Multi-Vehicle	-27.63303778	152.8742061	Kruger Pde	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	84409	Hospitalisation	2004	October	Friday	12	Rear-end	Multi-Vehicle	-27.63307409	152.8740633	Kruger Pde	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Wet	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	53910	Minor injury	2003	March	Saturday	7	Rear-end	Multi-Vehicle	-27.91260149	153.3891281	Lae Dr	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Curved - view open	Level	Veh'S Same Direction: Rear End
2	24939	Hospitalisation	2002	March	Sunday	11	Rear-end	Multi-Vehicle	-27.91271163	153.3891958	Lae Dr	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	52043	Minor injury	2003	June	Friday	11	Rear-end	Multi-Vehicle	-27.91278772	153.3890946	Lae Dr	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Curved - view open	Level	Veh'S Same Direction: Rear End
2	56789	Medical treatment	2003	October	Sunday	18	Rear-end	Multi-Vehicle	-27.91266679	153.3890254	Lae Dr	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Darkness - Lighted	Straight	Level	Veh'S Same Direction: Rear End
2	215655	Medical treatment	2009	September	Thursday	8	Rear-end	Multi-Vehicle	-16.90329216	145.760413	Lake St	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Wet	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	16384	Property damage only	2001	November	Wednesday	11	Rear-end	Multi-Vehicle	-16.90817123	145.7636192	Lake St	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	36015	Property damage only	2002	May	Monday	8	Rear-end	Multi-Vehicle	-16.90800059	145.7635921	Lake St	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	132412	Medical treatment	2006	November	Saturday	7	Rear-end	Multi-Vehicle	-27.6673532	152.9198822	Lakeside Ave	Local	Intersection - Roundabout	No traffic control	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	23047	Medical treatment	2001	May	Saturday	11	Rear-end	Multi-Vehicle	-27.45940451	152.9885221	Latrobe Tce	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	198439	Minor injury	2009	July	Sunday	16	Rear-end	Multi-Vehicle	-28.07378716	153.3788746	Laver Dr	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Curved - view open	Level	Veh'S Same Direction: Rear End
2	186464	Medical treatment	2008	April	Thursday	8	Rear-end	Multi-Vehicle	-27.59627551	153.081666	Learoyd Rd	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	100030	Hospitalisation	2005	April	Monday	14	Rear-end	Multi-Vehicle	-27.33058793	153.0456611	Lemke Rd	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Curved - view open	Level	Veh'S Same Direction: Rear End
2	187314	Hospitalisation	2011	August	Tuesday	12	Rear-end	Multi-Vehicle	-27.33064155	153.0453694	Lemke Rd	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Curved - view open	Level	Veh'S Same Direction: Rear End
2	120212	Medical treatment	2006	March	Sunday	11	Rear-end	Multi-Vehicle	-27.33066585	153.0456865	Lemke Rd	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	212349	Property damage only	2010	July	Sunday	16	Rear-end	Multi-Vehicle	-27.33067655	153.0453744	Lemke Rd	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Curved - view open	Level	Veh'S Same Direction: Rear End
2	103996	Minor injury	2005	September	Friday	15	Rear-end	Multi-Vehicle	-26.40381682	153.0830968	Leslie Dr	Local	Intersection - Roundabout	No traffic control	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	207722	Minor injury	2010	February	Monday	8	Rear-end	Multi-Vehicle	-28.08576228	153.3797509	Leviathan Dr	Local	Intersection - Roundabout	Give way sign	0 - 50 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	46085	Medical treatment	2002	August	Wednesday	13	Rear-end	Multi-Vehicle	-27.56367422	153.0816134	Macgregor St	Local	Intersection - Roundabout	Give way sign	0 - 50 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	189086	Medical treatment	2010	April	Wednesday	10	Rear-end	Multi-Vehicle	-27.56523205	153.0839047	Macgregor St	Local	Intersection - Roundabout	Give way sign	0 - 50 km/h	Sealed - Wet	Raining	Daylight	Curved - view obscured	Grade	Veh'S Same Direction: Rear End
2	35570	Minor injury	2002	August	Tuesday	12	Rear-end	Multi-Vehicle	-27.56475367	153.0843999	Macgregor St	Local	Intersection - Roundabout	Pedestrian crossing sign	0 - 50 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	66959	Hospitalisation	2004	January	Friday	8	Rear-end	Multi-Vehicle	-27.63385984	153.1383731	Magellan Rd	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	219279	Hospitalisation	2010	June	Wednesday	10	Rear-end	Multi-Vehicle	-27.05703631	153.1555875	Marina Blvd	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Wet	Raining	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	104234	Property damage only	2005	July	Thursday	15	Rear-end	Multi-Vehicle	-26.62283818	153.0401933	Maroochydyore - Noosa Rd	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Curved - view open	Level	Veh'S Same Direction: Rear End
2	60071	Medical treatment	2003	May	Thursday	16	Rear-end	Multi-Vehicle	-26.62264456	153.0402054	Maroochydyore - Noosa Rd	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Wet	Raining	Daylight	Curved - view open	Grade	Veh'S Same Direction: Rear End
2	127715	Medical treatment	2006	November	Thursday	12	Rear-end	Multi-Vehicle	-26.6203734	153.0700733	Maroochydyore - Noosa Rd	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	176357	Medical treatment	2008	October	Wednesday	18	Rear-end	Multi-Vehicle	-26.62055109	153.069498	Maroochydyore - Noosa Rd	State	Intersection - Roundabout	Sunshine Mwy Ramp Ab	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	134013	Medical treatment	2007	March	Monday	17	Rear-end	Multi-Vehicle	-26.67326723	152.9977474	Maroochydyore Rd	State	Intersection - Roundabout	Nambour Connection Rd	60 km/h	Sealed - Dry	Clear	Daylight	Curved - view open	Level	Veh'S Same Direction: Rear End
2	215565	Medical treatment	2010	August	Monday	18	Rear-end	Multi-Vehicle	-26.67418366	152.9986024	Maroochydyore Rd	State	Intersection - Roundabout	Nambour Connection Rd Off Ramp	60 km/h	Sealed - Dry	Clear	Dawn/Dusk	Curved - view open	Level	Veh'S Same Direction: Rear End
2	183172	Medical treatment	2009	March	Friday	16	Rear-end	Multi-Vehicle	-27.33510278	152.9545183	Mayrlyn Tce	Local	Intersection - Roundabout	Queen Elizabeth Dr	60 km/h	Sealed - Wet	Raining	Daylight	Straight	Grade	Veh'S Same Direction: Rear End
2	203894	Hospitalisation	2011	June	Friday	16	Rear-end	Multi-Vehicle	-23.1400609	150.7390545	Mcbean St	Local	Intersection - Roundabout	Tanby Rd	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	3401	Medical treatment	2001	February	Sunday	6	Rear-end	Multi-Vehicle	-19.30986896	146.8061379	Mervyn Crossman Dr	State	Intersection - Roundabout	Stuart Dr	60 km/h	Sealed - Wet	Raining	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	56490	Medical treatment	2003	July	Monday	11	Rear-end	Multi-Vehicle	-19.30987527	146.8061372	Mervyn Crossman Dr	State	Intersection - Roundabout	Stuart Dr	70 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	193058	Property damage only	2010	August	Wednesday	21	Rear-end	Multi-Vehicle	-19.30990023	146.805943	Mervyn Crossman Dr	State	Intersection - Roundabout	Townsville Connection Rd	60 km/h	Sealed - Dry	Clear	Darkness - Lighted	Curved - view open	Level	Veh'S Same Direction: Rear End
2	108877	Minor injury	2005	July	Saturday	12	Rear-end	Multi-Vehicle	-19.30981929	146.8061041	Mervyn Crossman Dr	State	Intersection - Roundabout	Townsville Connection Rd	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	126098	Property damage only	2006	September	Sunday	3	Rear-end	Multi-Vehicle	-19.30985491	146.8061478	Mervyn Crossman Dr	State	Intersection - Roundabout	Townsville Connection Rd	70 km/h	Sealed - Wet	Clear	Darkness - Lighted	Straight	Level	Veh'S Same Direction: Rear End
2	155729	Medical treatment	2008	August	Sunday	13	Rear-end	Multi-Vehicle	-27.60932514	152.92227	Mica St	Local	Intersection - Roundabout	Old Logan Rd	60 km/h	Sealed - Dry	Clear	Daylight	Curved - view open	Level	Veh'S Same Direction: Rear End
2	191564	Property damage only	2009	September	Wednesday	10	Rear-end	Multi-Vehicle	-27.9289198	153.3339145	Millaroo Dr	Local	Intersection - Roundabout	Phillip Gray Rd	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	11948	Medical treatment	2001	June	Monday	8	Rear-end	Multi-Vehicle	-27.47866143	152.9848139	Milton Rd	State	Intersection - Roundabout	Miskin St	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	46819	Minor injury	2002	December	Friday	17	Rear-end	Multi-Vehicle	-27.47864837	152.9848114	Milton Rd	State	Intersection - Roundabout	Miskin St	60 km/h	Sealed - Dry	Clear	Dawn/Dusk	Straight	Grade	Veh'S Same Direction: Rear End
2	123618	Medical treatment	2006	February	Thursday	12	Rear-end	Multi-Vehicle	-27.47849859	152.9852767	Milton Rd	State	Intersection - Roundabout	Miskin St	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	118147	Minor injury	2006	March	Tuesday	7	Rear-end	Multi-Vehicle	-27.4780817	152.9849137	Milton Rd	State	Intersection - Roundabout	Western Arterial Rd	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	115713	Medical treatment	2006	April	Thursday	11	Rear-end	Multi-Vehicle	-27.478												

2	121004	Property damage only	2006	March	Saturday	14	Rear-end	Multi-Vehicle	-28.04899326	153.3561742	Pacific Hwy	Pacific Hwy Off Ramp	State	Intersection - Roundabout	Give way sign	70 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	157919	Medical treatment	2008	April	Tuesday	7	Rear-end	Multi-Vehicle	-28.11428696	153.418456	Pacific Hwy	Southport - Burleigh Rd	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	199843	Hospitalisation	2011	March	Tuesday	5	Rear-end	Multi-Vehicle	-27.63895172	153.1371135	Pacific Hwy Connection Rd	Springwood Conn Rd Service Rd	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Dawn/Dusk	Straight	Level	Veh'S Same Direction: Rear End
2	166287	Medical treatment	2008	April	Tuesday	11	Rear-end	Multi-Vehicle	-28.09945713	153.4015845	Pacific Hwy Off Ramp	Pacific Hwy On Ramp	State	Intersection - Roundabout	Give way sign	80 - 90 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	34200	Property damage only	2002	May	Thursday	19	Rear-end	Multi-Vehicle	-28.09955985	153.401726	Pacific Hwy Off Ramp	Pacifca Hwy Overpass	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Darkness - Lighted	Straight	Level	Veh'S Same Direction: Rear End
2	180056	Minor injury	2006	July	Tuesday	8	Rear-end	Multi-Vehicle	-27.70531669	153.2032759	Pacific Hwy Off Ramp	Pacific Hwy Roundabout	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Curved - view open	Grade	Veh'S Same Direction: Rear End
2	200540	Minor injury	2009	October	Monday	14	Rear-end	Multi-Vehicle	-27.71878757	153.2133732	Pacific Hwy Off Ramp	Pacific Hwy Roundabout	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Curved - view open	Crest	Veh'S Same Direction: Rear End
2	199983	Property damage only	2009	November	Saturday	16	Rear-end	Multi-Vehicle	-28.07216182	153.364372	Pacific Hwy Off Ramp	Robina Town Centre Dr	State	Intersection - Roundabout	Give way sign	0 - 50 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	35862	Minor injury	2002	August	Wednesday	15	Rear-end	Multi-Vehicle	-27.80454923	153.2666756	Pacific Hwy Off Ramp	Tillyroen Rd	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	115464	Medical treatment	2005	December	Saturday	20	Rear-end	Multi-Vehicle	-28.08307411	153.3809206	Pacific Hwy On Ramp	Robina Parkway	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Darkness - Lighted	Straight	Level	Veh'S Same Direction: Rear End
2	137915	Medical treatment	2007	March	Monday	8	Rear-end	Multi-Vehicle	-28.07254898	153.3643622	Pacific Hwy On Ramp	Robina Town Centre Dr	State	Intersection - Roundabout	No traffic control	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	35081	Medical treatment	2002	October	Monday	8	Rear-end	Multi-Vehicle	-27.6389674	153.1371229	Pacific Hwy Service Rd	Springwood Connection Rd	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	161415	Hospitalisation	2007	August	Saturday	19	Rear-end	Multi-Vehicle	-27.63916274	153.137019	Pacific Hwy Service Rd	Springwood Connection Rd	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Darkness - Lighted	Straight	Level	Veh'S Same Direction: Rear End
2	184841	Medical treatment	2008	October	Saturday	11	Rear-end	Multi-Vehicle	-27.63912687	153.1370336	Pacific Hwy Service Rd	Springwood Connection Rd	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Curved - view open	Level	Veh'S Same Direction: Rear End
2	14524	Medical treatment	2001	July	Saturday	17	Rear-end	Multi-Vehicle	-27.7347692	153.2299288	Pacific Hwy Service Rd	Staplyton - Jacobs Well Rd	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Dawn/Dusk	Curved - view open	Grade	Veh'S Same Direction: Rear End
2	44241	Property damage only	2002	November	Monday	6	Rear-end	Multi-Vehicle	-27.9416005	153.3272512	Pacific Pines Blvd	Santa Isobel Blvd	Local	Intersection - Roundabout	No traffic control	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	56093	Minor injury	2003	July	Thursday	7	Rear-end	Multi-Vehicle	-27.75072724	153.2127873	Pagan Rd	Stanmore Rd	Local	Intersection - Roundabout	Give way sign	80 - 90 km/h	Sealed - Dry	Clear	Daylight	Straight	Grade	Veh'S Same Direction: Rear End
2	112076	Medical treatment	2005	November	Friday	14	Rear-end	Multi-Vehicle	-28.00650348	153.3433315	Pappas Way	Spencer Rd	Local	Intersection - Roundabout	No traffic control	0 - 50 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	170315	Medical treatment	2008	December	Tuesday	11	Rear-end	Multi-Vehicle	-28.00686969	153.3429443	Pappas Way	Spencer Rd	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	46020	Medical treatment	2001	March	Friday	19	Rear-end	Multi-Vehicle	-28.00658156	153.3436522	Pappas Way	Spencer Rd	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Darkness - Lighted	Curved - view open	Level	Veh'S Same Direction: Rear End
2	201015	Hospitalisation	2009	November	Thursday	13	Rear-end	Multi-Vehicle	-28.0066086	153.3435461	Pappas Way	Spencer Rd	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	43000	Hospitalisation	2003	February	Tuesday	16	Rear-end	Multi-Vehicle	-27.69844917	153.0400807	Park Ridge Rd		Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Wet	Raining	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	105599	Medical treatment	2005	June	Wednesday	16	Rear-end	Multi-Vehicle	-27.78754448	153.2558562	Peachey Rd	Tillyroen Rd	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Curved - view obscured	Grade	Veh'S Same Direction: Rear End
2	206784	Medical treatment	2009	December	Monday	6	Rear-end	Multi-Vehicle	-27.78749691	153.2559181	Peachey Rd	Tillyroen Rd	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	122096	Minor injury	2006	May	Thursday	6	Rear-end	Multi-Vehicle	-19.26889902	146.7672122	Pilkington St	Townsville Port Rd	State	Intersection - Roundabout	Give way sign	80 - 90 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	65983	Property damage only	2004	January	Sunday	10	Rear-end	Multi-Vehicle	-27.60832095	152.7621386	Pine St	The Terrace	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	67142	Property damage only	2003	December	Monday	11	Rear-end	Multi-Vehicle	-27.60832258	152.7621447	Pine St	The Terrace	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	68730	Medical treatment	2004	March	Wednesday	9	Rear-end	Multi-Vehicle	-27.60832102	152.7621458	Pine St	The Terrace	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	183966	Property damage only	2009	October	Friday	8	Rear-end	Multi-Vehicle	-27.60828955	152.7621513	Pine St	The Terrace	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	26887	Property damage only	2002	August	Monday	9	Rear-end	Multi-Vehicle	-16.50114357	145.4635161	Port Douglas Rd	Sheraton Mirage Access Rd	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Curved - view open	Level	Veh'S Same Direction: Rear End
2	77356	Property damage only	2004	April	Thursday	16	Rear-end	Multi-Vehicle	-27.45449693	153.1673039	Preston Rd	Wondall Rd	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	209998	Minor injury	2010	October	Monday	16	Rear-end	Multi-Vehicle	-26.52587316	153.0626681	Quanda Rd	Yandina - Coolum Rd	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	133844	Medical treatment	2006	June	Monday	15	Rear-end	Multi-Vehicle	-28.0710504	153.4139746	Ring Rd	University Dr	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	191627	Medical treatment	2009	July	Monday	16	Rear-end	Multi-Vehicle	-27.68821017	152.802166	Ripley Rd	South West Arterial Rd	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	158572	Property damage only	2007	September	Wednesday	10	Rear-end	Multi-Vehicle	-23.14046785	150.7394098	Rockhampton - Yeppoon Rd	Tanby Rd	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	214970	Property damage only	2010	August	Thursday	11	Rear-end	Multi-Vehicle	-23.1401929	150.7393485	Rockhampton - Yeppoon Rd	Tanby Rd	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	33154	Medical treatment	2002	June	Sunday	12	Rear-end	Multi-Vehicle	-27.38161672	153.0636922	Sandgate Rd	Toombul Rd	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	79262	Medical treatment	2004	May	Wednesday	15	Rear-end	Multi-Vehicle	-27.38049322	153.063857	Sandgate Sub-Arterial Rd	Whitfield St	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	25048	Medical treatment	2001	November	Wednesday	15	Rear-end	Multi-Vehicle	-28.13245553	153.4739127	Sarawak Ave	Thrower Dr	Local	Intersection - Roundabout	Give way sign	0 - 50 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	193900	Medical treatment	2009	June	Wednesday	16	Rear-end	Multi-Vehicle	-28.13253705	153.4732172	Sarawak Ave	Thrower Dr	Local	Intersection - Roundabout	Give way sign	0 - 50 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	143964	Medical treatment	2008	February	Wednesday	8	Rear-end	Multi-Vehicle	-28.13257127	153.4732081	Sarawak Ave	Thrower Dr	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	53315	Hospitalisation	2002	December	Monday	16	Rear-end	Multi-Vehicle	-28.13257407	153.4731989	Sarawak Ave	Thrower Dr	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Curved - view open	Level	Veh'S Same Direction: Rear End
2	54924	Medical treatment	2003	May	Wednesday	12	Rear-end	Multi-Vehicle	-28.13253989	153.4732236	Sarawak Ave	Thrower Dr	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Wet	Raining	Daylight	Curved - view open	Level	Veh'S Same Direction: Rear End
2	201122	Property damage only	2010	February	Thursday	13	Rear-end	Multi-Vehicle	-27.66784529	152.9135702	South West Art Rd On Ramp	Springfield Pky	State	Intersection - Roundabout	Give way sign	70 km/h	Sealed - Dry	Clear	Daylight	Curved - view open	Level	Veh'S Same Direction: Rear End
2	5227	Medical treatment	2001	February	Monday	9	Rear-end	Multi-Vehicle	-26.67372352	153.0945306	Sugar Rd	Wises Rd	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Grade	Veh'S Same Direction: Rear End
2	35780	Minor injury	2002	May	Wednesday	13	Rear-end	Multi-Vehicle	-26.67374291	153.0945266	Sugar Rd	Wises Rd	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Wet	Raining	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	183258	Hospitalisation	2009	December	Friday	15	Rear-end	Multi-Vehicle	-26.535752	153.0730853	Sunshine Mwy	Yandina - Coolum Rd	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	184702	Property damage only	2008	February	Tuesday	8	Rear-end	Multi-Vehicle	-26.53571842	153.0730732	Sunshine Mwy	Yandina - Coolum Rd	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Wet	Raining	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	14389	Property damage only	2001	September	Monday	9	Rear-end	Multi-Vehicle	-26.53478845	153.0732655	Sunshine Mwy	Yandina - Coolum Rd	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	71331	Property damage only	2004	April	Monday	8	Rear-end	Multi-Vehicle	-26.53585235	153.0731374	Sunshine Mwy	Yandina - Coolum Rd	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Curved - view open	Level	Veh'S Same Direction: Rear End
2	105317	Medical treatment	2005	October	Friday	15	Rear-end	Multi-Vehicle	-26.5348057	153.073434	Sunshine Mwy	Yandina - Coolum Rd	State	Intersection - Roundabout	No traffic control	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	136440	Hospitalisation	2007	February	Tuesday	8	Rear-end	Multi-Vehicle	-26.5352638	153.0740215	Sunshine Mwy	Yandina - Coolum Rd	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Curved - view open	Level	Veh'S Same Direction: Rear End
2	151588	Minor injury	2007	October	Friday	12	Rear-end	Multi-Vehicle	-26.53486193	153.0733427	Sunshine Mwy	Yandina - Coolum Rd	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	177214	Property damage only	2009	February	Wednesday	10	Rear-end	Multi-Vehicle	-26.53475872	153.0732637	Sunshine Mwy	Yandina - Coolum Rd	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	207844	Medical treatment	2010	November	Tuesday	7	Rear-end	Multi-Vehicle	-26.53489098	153.073156	Sunshine Mwy	Yandina - Coolum Rd	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	211005	Minor injury	2010	November	Wednesday	12	Rear-end	Multi-Vehicle	-26.53575699	153.073357	Sunshine Mwy	Yandina - Coolum Rd	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Veh'S Same Direction: Rear End
2	26392	Property damage only	2002	June	Friday	15	Rear-end	Multi-Vehicle	-26.53582462	153.0730878	Sunshine Mwy	Yandina - Coolum Rd	State	Intersection - Roundabout	Give way sign	80 - 90 km/h	Sealed - Dry	Clear	Daylight	Curved - view open	Level	Veh'S Same Direction: Rear End
2	38132	Property damage only	2002	August	Wednesday	18	Rear-end	Multi-Vehicle	-26.53578005	153.0731065	Sunshine Mwy	Yandina - Coolum Rd	State	Intersection - Roundabout	Give way sign	80 - 90 km/h	Sealed - Dry	Clear	Darkness - Not lighted	Straight	Level	Veh'S Same Direction: Rear End
2	112769	Property damage only	2006	January	Monday	20	Rear-end	Multi-Vehicle	-26.53477319	153.073308	Sunshine Mwy	Yandina - Coolum Rd	State	Intersection - Roundabout	Give way sign	80 - 90 km/h	Sealed - Dry	Clear	Darkness - Lighted	Straight	Level	Veh'S Same Direction: Rear End

11. Appendix C: Entry/Circulating Crash Data

Xfall	Vehicle	Intended Movement	Ref Number	Severity	Year	Month	Day	Hour	Type	Crash Nature	Latitude	Longitude	Street	Intersecting Street	Road Authority	Road Feature	Traffic Control	Crash Speed Limit	Road Surface	Conditions	Lighting	Horiz Alignment	Vert Alignment	Crash Description Category
0	Car/Station wagon	Go straight ahead	10209	Property damage only	2010	March	Tuesday	9	Multi-vehicle	Angle	-16.90894769	145.7601058	James St	Mcleod St	State controlled	Intersection - Roundabout	Give way sign	0 - 50 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Intersection from adjacent approaches
0	Car/Station wagon	Make left turn	9578	Property damage only	2010	March	Saturday	8	Multi-vehicle	Angle	-27.5471388	153.1319699	Redland Sub-Arterial Rd (1/95)	Redland Sub-Arterial Rd (1/95)	State controlled	Intersection - Roundabout	Give way sign	0 - 50 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Intersection from adjacent approaches
0	Car/Station wagon	Make right turn	10803	Property damage only	2010	February	Friday	10	Multi-vehicle	Angle	-27.91087028	153.3961491	Sports Dr	Egerton St	Locally controlled	Intersection - Roundabout	Give way sign	0 - 50 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Vehicle leaving driveway
0	Utility/Panel van	Go straight ahead	10272	Property damage only	2010	March	Wednesday	8	Multi-vehicle	Angle	-23.52489263	148.1597733	Anakie St	Young St	Locally controlled	Intersection - Roundabout	Give way sign	0 - 50 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Intersection from adjacent approaches
0	Car/Station wagon	Go straight ahead	10097	Medical treatment	2010	November	Thursday	10	Multi-vehicle	Angle	-19.57514648	147.4043197	Graham St	McLeod St	State controlled	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	U-turn
0	Bus/Coach	Go straight ahead	8722	Property damage only	2010	March	Saturday	2	Multi-vehicle	Angle	-16.90895668	145.7601808	Anderson St	McLeod St	State controlled	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Darkness - Lighted	Straight	Level	Intersection from adjacent approaches
0	Car/Station wagon	Go straight ahead	7813	Property damage only	2010	February	Sunday	10	Multi-vehicle	Angle	-19.99338382	148.2433966	Soldiers Rd	Tollington Rd	Locally controlled	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Intersection from adjacent approaches
0	Car/Station wagon	Go straight ahead	9343	Hospitalisation	2010	March	Tuesday	6	Multi-vehicle	Angle	-27.49381668	153.0059454	Coldridge St	Sir Fred Schonell Dr	Locally controlled	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Dawn/Dusk	Straight	Level	Intersection from adjacent approaches
0	Car/Station wagon	Go straight ahead	9614	Property damage only	2010	September	Saturday	17	Multi-vehicle	Angle	-17.2780313	146.7722304	Hammett St	Mooney St	Locally controlled	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Dawn/Dusk	Straight	Level	Intersection from adjacent approaches
0	Car/Station wagon	Go straight ahead	10068	Hospitalisation	2010	June	Saturday	11	Multi-vehicle	Angle	-27.5470538	153.1320669	Redland Sub-Arterial Rd (1/95)	Redland Sub-Arterial Rd (1/95)	State controlled	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Curved - view open	Level	Opposing vehicles turning
0	Car/Station wagon	Go straight ahead	10359	Medical treatment	2010	June	Wednesday	17	Multi-vehicle	Angle	-27.50033394	152.9735119	Belgrave Rd	Lockwood Pl	Locally controlled	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Intersection from adjacent approaches
0	Car/Station wagon	Make right turn	9906	Property damage only	2010	October	Thursday	11	Multi-vehicle	Angle	-19.31790822	146.8192258	Bruce Hwy	Lakeside Dr	State controlled	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Intersection from adjacent approaches
0	Utility/Panel van	Make right turn	9864	Hospitalisation	2010	October	Friday	7	Multi-vehicle	Angle	-27.56010311	152.9352809	Dandenong Rd	Summers Rd	Locally controlled	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Parallel lanes turning
0	Car/Station wagon	Go straight ahead	8326	Minor injury	2010	February	Saturday	19	Multi-vehicle	Angle	-16.90902469	145.7599948	Anderson St	Mcleod St	State controlled	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Wet	Raining	Darkness - Lighted	Straight	Level	Intersection from adjacent approaches
0	Car/Station wagon	Go straight ahead	9712	Medical treatment	2010	April	Wednesday	9	Multi-vehicle	Angle	-16.90893368	145.7599568	James St	Mcleod St	State controlled	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Wet	Raining	Daylight	Straight	Level	Intersection from adjacent approaches
0	Car/Station wagon	Make right turn	9691	Medical treatment	2010	March	Saturday	14	Multi-vehicle	Angle	-27.54693579	153.1320629	Mt Gravatt - Capalaba Rd	Redland Sub-Arterial Rd (1/95)	State controlled	Intersection - Roundabout	Give way sign	80 - 90 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Intersection from adjacent approaches
0	Utility/Panel van	Go straight ahead	8526	Property damage only	2010	December	Thursday	6	Multi-vehicle	Angle	-19.26706235	146.7484437	Mather St	Townsville Port Rd (09)	State controlled	Intersection - Roundabout	Give way sign	80 - 90 km/h	Sealed - Dry	Clear	Dawn/Dusk	Straight	Level	Intersection from adjacent approaches
1	Bicycle	Go straight ahead	9010	Hospitalisation	2010	February	Sunday	16	Multi-vehicle	Angle	-27.97055237	153.373715	Crestwood Dr	Lockwood Pl	Locally controlled	Intersection - Roundabout	Give way sign	0 - 50 km/h	Sealed - Dry	Clear	Daylight	Curved - view open	Level	Intersection from adjacent approaches
1	Bicycle	Go straight ahead	9012	Medical treatment	2010	December	Wednesday	8	Multi-vehicle	Angle	-28.02991201	153.4341456	Charles Ave	Old Burleigh Rd	Locally controlled	Intersection - Roundabout	Give way sign	0 - 50 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Vehicle leaving driveway
1	Bicycle	Go straight ahead	9571	Hospitalisation	2010	November	Wednesday	8	Multi-vehicle	Angle	-28.08795808	153.4044826	Bayswater Ave	Christine Ave	Locally controlled	Intersection - Roundabout	No traffic control	0 - 50 km/h	Sealed - Dry	Clear	Daylight	Curved - view obscured	Level	Intersection from adjacent approaches
1	Bicycle	Go straight ahead	9717	Medical treatment	2010	January	Monday	16	Multi-vehicle	Angle	-27.99864571	153.4236378	Stanhill Dr	Thomas Dr	Locally controlled	Intersection - Roundabout	Give way sign	0 - 50 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Intersection from adjacent approaches
1	Bicycle	Go straight ahead	9905	Medical treatment	2010	April	Thursday	15	Multi-vehicle	Angle	-27.60110446	151.9510081	Hume St	Spring St	Locally controlled	Intersection - Roundabout	Give way sign	0 - 50 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Vehicle leaving driveway
1	Bus/Coach	Go straight ahead	9322	Medical treatment	2010	December	Sunday	12	Multi-vehicle	Angle	-27.49900663	153.0107144	Hawken Dr	Upland Rd	Locally controlled	Intersection - Roundabout	Give way sign	0 - 50 km/h	Sealed - Dry	Clear	Daylight	Curved - view open	Level	Intersection from adjacent approaches
1	Car/Station wagon	Go straight ahead	9649	Hospitalisation	2010	May	Wednesday	13	Multi-vehicle	Angle	-26.6690292	153.0489503	North Buderim Blvd	Woolford Cres	Locally controlled	Intersection - Roundabout	Give way sign	0 - 50 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Opposing vehicles turning
1	Car/Station wagon	Go straight ahead	8752	Property damage only	2010	October	Thursday	13	Multi-vehicle	Angle	-19.25708624	146.8216166	Flinders St	Wickham St	Locally controlled	Intersection - Roundabout	Give way sign	0 - 50 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Opposing vehicles turning
1	Car/Station wagon	Go straight ahead	8851	Property damage only	2010	January	Wednesday	15	Multi-vehicle	Angle	-28.21829174	152.0321856	Palmerin St	Percy St	Locally controlled	Intersection - Roundabout	Give way sign	0 - 50 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Opposing vehicles turning
1	Car/Station wagon	Go straight ahead	9102	Minor injury	2010	February	Sunday	19	Multi-vehicle	Angle	-21.14462204	149.1802567	Alfred St	Wellington St	Locally controlled	Intersection - Roundabout	Give way sign	0 - 50 km/h	Sealed - Dry	Clear	Darkness - Lighted	Straight	Level	Intersection from adjacent approaches
1	Car/Station wagon	Go straight ahead	9132	Medical treatment	2010	October	Thursday	12	Multi-vehicle	Angle	-23.37548555	150.5098061	Archer St	Bolsolver St	Locally controlled	Intersection - Roundabout	Give way sign	0 - 50 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Intersection from adjacent approaches
1	Car/Station wagon	Go straight ahead	9237	Hospitalisation	2010	January	Saturday	17	Multi-vehicle	Angle	-27.94691618	153.3916468	Central St	Usher Ave	Locally controlled	Intersection - Roundabout	Give way sign	0 - 50 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Intersection from adjacent approaches
1	Car/Station wagon	Go straight ahead	9258	Property damage only	2010	February	Wednesday	6	Multi-vehicle	Angle	-27.19259289	153.0302615	Maine Tce	Silver St	Locally controlled	Intersection - Roundabout	Give way sign	0 - 50 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Intersection from adjacent approaches
1	Car/Station wagon	Go straight ahead	9389	Medical treatment	2010	September	Thursday	13	Multi-vehicle	Angle	-27.96476219	153.4004926	Beale St	Johnston St	Locally controlled	Intersection - Roundabout	Give way sign	0 - 50 km/h	Sealed - Dry	Clear	Dawn/Dusk	Straight	Level	Intersection from adjacent approaches
1	Car/Station wagon	Go straight ahead	9394	Property damage only	2010	October	Saturday	12	Multi-vehicle	Angle	-23.35749556	150.5191859	Aquatic Pl	High St	Locally controlled	Intersection - Roundabout	Give way sign	0 - 50 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Opposing vehicles turning
1	Car/Station wagon	Go straight ahead	9460	Property damage only	2010	November	Friday	16	Multi-vehicle	Angle	-27.26475899	153.0065055	Dohles Rocks Rd	Ogg Rd	Locally controlled	Intersection - Roundabout	Give way sign	0 - 50 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Opposing vehicles turning
1	Car/Station wagon	Go straight ahead	9461	Property damage only	2010	June	Monday	12	Multi-vehicle	Angle	-17.26491105	145.477812	Jack St	Mabel St	Locally controlled	Intersection - Roundabout	Give way sign	0 - 50 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Opposing vehicles turning
1	Car/Station wagon	Go straight ahead	9517	Hospitalisation	2010	June	Monday	13	Multi-vehicle	Angle	-28.12149941	153.4710188	Cypress Tce	Palm Beach Ave	Locally controlled	Intersection - Roundabout	Give way sign	0 - 50 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Intersection from adjacent approaches
1	Car/Station wagon	Go straight ahead	9637	Hospitalisation	2010	November	Thursday	6	Multi-vehicle	Angle	-21.14626792	149.192765	Byron St	Park St	Locally controlled	Intersection - Roundabout	Give way sign	0 - 50 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Intersection from adjacent approaches
1	Car/Station wagon	Go straight ahead	9649	Property damage only	2010	July	Monday	15	Multi-vehicle	Angle	-27.24432116	153.0632236	Ken St	Ward Rd	Locally controlled	Intersection - Roundabout	Give way sign	0 - 50 km/h	Sealed - Dry	Clear	Darkness - Lighted	Straight	Level	Intersection from adjacent approaches
1	Car/Station wagon	Go straight ahead	9696	Medical treatment	2010	August	Wednesday	27	Multi-vehicle	Angle	-27.94817221	153.3999004	Central St	Wilson St	Locally controlled	Intersection - Roundabout	Give way sign	0 - 50 km/h	Sealed - Dry	Clear	Darkness - Lighted	Straight	Level	Intersection from adjacent approaches
1	Car/Station wagon	Go straight ahead	9699	Hospitalisation	2010	July	Friday	21	Multi-vehicle	Angle	-28.06510799	153.4360769	Hillcrest Pde	Paradise Ave	Locally controlled	Intersection - Roundabout	Give way sign	0 - 50 km/h	Sealed - Dry	Clear	Darkness - Lighted	Straight	Level	Intersection from adjacent approaches
1	Car/Station wagon	Go straight ahead	9736	Hospitalisation	2010	July	Thursday	8	Multi-vehicle	Angle	-28.13243445	153.4732969	Sarawak Ave	Thrower Dr	Locally controlled	Intersection - Roundabout	Give way sign	0 - 50 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Intersection from adjacent approaches
1	Car/Station wagon	Go straight ahead	9757	Property damage only	2010	July	Wednesday	12	Multi-vehicle	Angle	-19.29988827	146.7648085	Alfred St	Elizabeth St	Locally controlled	Intersection - Roundabout	Give way sign	0 - 50 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Intersection from adjacent approaches
1	Car/Station wagon	Go straight ahead	9790	Medical treatment	2010	July	Saturday	8	Multi-vehicle	Angle	-19.24915427	146.8125227	Kennedy St S	Mitchell St	Locally controlled	Intersection - Roundabout	Give way sign	0 - 50 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Intersection from adjacent approaches
1	Car/Station wagon	Go straight ahead	9821	Hospitalisation	2010	October	Saturday	17	Multi-vehicle	Angle	-27.42188783	153.0016537	Farrington St	Huddart St	Locally controlled	Intersection - Roundabout	Give way sign	0 - 50 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Intersection from adjacent approaches
1	Car/Station wagon	Go straight ahead	9838	Medical treatment	2010	April	Monday	27	Multi-vehicle	Angle	-27.21341129	153.0632236	Ken St	Ward Rd	Locally controlled	Intersection - Roundabout	Give way sign	0 - 50 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Intersection from adjacent approaches
1	Car/Station wagon	Go straight ahead	9839	Property damage only	2010	October	Thursday	9	Multi-vehicle	Angle	-27.6805275	153.1205341	Logan Reserve Rd	Muchrow Rd	Locally controlled	Intersection - Roundabout	Give way sign	0 - 50 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Intersection from adjacent approaches
1	Car/Station wagon	Go straight ahead	9950	Hospitalisation	2010	November	Monday	13	Multi-vehicle	Angle	-27.62479999	152.9549152	Roxwell St	Woogaroo St	Locally controlled	Intersection - Roundabout	Give way sign	0 - 50 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Intersection from adjacent approaches
1	Car/Station wagon	Go straight ahead	9966	Property damage only	2010	July	Saturday	18	Multi-vehicle	Angle	-24.86787785	152.3469852	Maryborough St	Woongarra St	Locally controlled	Intersection - Roundabout	Give way sign	0 - 50 km/h	Sealed - Dry	Clear	Dawn/Dusk	Straight	Level	Intersection from adjacent approaches
1	Car/Station wagon	Go straight ahead	10028	Hospitalisation	2010	December	Wednesday	19	Multi-vehicle	Angle	-26.5396479	151.8278378	Alford St	First Ave	Locally controlled	Intersection - Roundabout	Give way sign	0 - 50 km/h	Sealed - Dry	Clear	Darkness - Lighted	Straight	Level	Intersection from adjacent approaches
1	Car/Station wagon	Go straight ahead	10052	Property damage only	2010	August	Friday	15	Multi-vehicle	Angle	-27.99775604	153.4178946	Anembo St	Thomas Dr	Locally controlled	Intersection - Roundabout	Give way sign	0 - 50 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Intersection from adjacent approaches
1	Car/Station wagon	Go straight ahead	10094	Property damage only	2010	October	Saturday	6	Multi-vehicle	Angle	-19.571197147	147.4104955	Macmillan St	Ward Rd	Locally controlled	Intersection - Roundabout	Give way sign	0 - 50 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Intersection from adjacent approaches
1	Car/Station wagon	Go straight ahead	10092	Property damage only	2010	December	Thursday	9	Multi-vehicle	Angle	-27.55829585	151.9076123	Hursley Rd	McDougall St	Locally controlled	Intersection - Roundabout	Give way sign	0 - 50 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Intersection from adjacent approaches
1	Car/Station wagon	Go straight ahead	10114	Property damage only	2010	September	Monday	17	Multi-vehicle	Angle	-19.5751165	147.4076137	Edwards St	Macmillan St	Locally controlled	Intersection - Roundabout	Give way sign	0 - 50 km/h	Sealed - Dry	Clear	Dawn/Dusk	Straight	Level	Intersection from adjacent approaches
1	Car/Station wagon	Go straight ahead	10127	Hospitalisation	2010	May	Tuesday	7	Multi-vehicle	Angle	-27.68602875	153.1205161	Logan Reserve Rd	Muchow Rd	Locally controlled	Intersection - Roundabout	Give way sign	0 - 50 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Intersection from adjacent approaches
1	Car/Station wagon	Go straight ahead	10154	Medical treatment	2010	June	Friday	14	Multi-vehicle	Angle	-27.54204398	152.9563315	Counilhard Rd	Jennifer St	Locally controlled	Intersection - Roundabout	Give way sign	0 - 50 km/h	Sealed - Dry	Clear	Daylight	Curved - view open	Level	Intersection from adjacent approaches
1	Car/Station wagon	Go straight ahead	10192	Medical treatment	2010	December	Friday	8	Multi-vehicle	Angle	-23.84881817	151.2594243	Goodnoon St	Tank St	Locally controlled	Intersection - Roundabout	Give way sign	0 - 50 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Intersection from adjacent approaches
1	Car/Station wagon	Go straight ahead	10218	Property damage only	2010	April	Thursday	14	Multi-vehicle	Angle	-26.81961247	153.1200118	Beattie St	Landsborough Pde	Locally controlled	Intersection - Roundabout	Give way sign	0 - 50 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Opposing vehicles turning
1	Car/Station wagon	Go straight ahead	10249	Hospitalisation	2010	October	Wednesday	23	Multi-vehicle	Angle	-27.9310144	153.0632236	Ken St	Ward Rd	Locally controlled	Intersection - Roundabout	Give way sign							

1	Car/Station wagon	Go straight ahead	9523	Medical treatment	2010 May	Monday	14	Multi-vehicle	Angle	-27.57805384	152.9739725	Freeman Rd	Rudd St	Locally controlled	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Grade	Intersection from adjacent approaches
1	Car/Station wagon	Go straight ahead	9526	Property damage only	2010 February	Sunday	17	Multi-vehicle	Angle	-26.79431998	153.1427972	Edmund St	William St	Locally controlled	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Dip	Intersection from adjacent approaches
1	Car/Station wagon	Go straight ahead	9531	Property damage only	2010 October	Wednesday	19	Multi-vehicle	Angle	-19.30448327	146.7408658	Bamford La	Charles St	Locally controlled	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Darkness - Lighted	Straight	Level	Intersection from adjacent approaches
1	Car/Station wagon	Go straight ahead	9569	Hospitalisation	2010 April	Friday	16	Multi-vehicle	Angle	-27.71397819	153.2036241	Alamein St	La St	Locally controlled	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Opposing vehicles turning
1	Car/Station wagon	Go straight ahead	9581	Medical treatment	2010 November	Monday	6	Multi-vehicle	Angle	-24.86788385	152.3469882	Maryborough St	Woongarra St	Locally controlled	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Intersection from adjacent approaches
1	Car/Station wagon	Go straight ahead	9588	Hospitalisation	2010 January	Wednesday	8	Multi-vehicle	Angle	-24.87080383	152.3505213	Barolin St	Electra St	Locally controlled	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Intersection from adjacent approaches
1	Car/Station wagon	Go straight ahead	9590	Medical treatment	2010 November	Thursday	9	Multi-vehicle	Angle	-19.29381829	146.7560586	Charles St	Lindeman Ave	Locally controlled	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Intersection from adjacent approaches
1	Car/Station wagon	Go straight ahead	9592	Property damage only	2010 June	Saturday	16	Multi-vehicle	Angle	-27.2439673	153.099355	Duffield Rd	Victoria Ave	Locally controlled	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Dip	Intersection from adjacent approaches
1	Car/Station wagon	Go straight ahead	9600	Property damage only	2010 August	Sunday	15	Multi-vehicle	Angle	-27.31382649	153.0585911	Bracken Ridge Rd	Nash St	Locally controlled	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Intersection from adjacent approaches
1	Car/Station wagon	Go straight ahead	9613	Property damage only	2010 May	Thursday	19	Multi-vehicle	Angle	-27.38609495	152.9851576	Beckett Rd	Rode Rd	Locally controlled	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Darkness - Lighted	Straight	Level	Intersection from adjacent approaches
1	Car/Station wagon	Go straight ahead	9618	Property damage only	2010 September	Thursday	17	Multi-vehicle	Angle	-19.29373529	146.7431348	Bamford La	Mill Dr	Locally controlled	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Intersection from adjacent approaches
1	Car/Station wagon	Go straight ahead	9622	Medical treatment	2010 August	Saturday	7	Multi-vehicle	Angle	-27.45917944	153.0430365	James St	Kent St	Locally controlled	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Darkness - Lighted	Straight	Level	Intersection from adjacent approaches
1	Car/Station wagon	Go straight ahead	9628	Property damage only	2010 August	Friday	7	Multi-vehicle	Angle	-27.58666335	151.9622948	Alderley St	Ramsay St	Locally controlled	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Intersection from adjacent approaches
1	Car/Station wagon	Go straight ahead	9639	Hospitalisation	2010 July	Thursday	6	Multi-vehicle	Angle	-27.61138884	152.9721708	Joseph Banks Ave	Woodland Ave	Locally controlled	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Dip	Intersection from adjacent approaches
1	Car/Station wagon	Go straight ahead	9640	Hospitalisation	2010 April	Monday	14	Multi-vehicle	Angle	-27.61156985	152.9722268	Joseph Banks Ave	Woodland Ave	Locally controlled	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Intersection from adjacent approaches
1	Car/Station wagon	Go straight ahead	9659	Medical treatment	2010 October	Saturday	14	Multi-vehicle	Angle	-21.15778015	149.1708959	Bridge Rd	Paradise St	Locally controlled	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Intersection from adjacent approaches
1	Car/Station wagon	Go straight ahead	9671	Property damage only	2010 August	Wednesday	9	Multi-vehicle	Angle	-27.58789727	151.9710267	Alderley St	Mackenzie St	Locally controlled	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Grade	Intersection from adjacent approaches
1	Car/Station wagon	Go straight ahead	9673	Medical treatment	2010 May	Sunday	9	Multi-vehicle	Angle	-27.21193123	152.9676513	Boundary Rd	Old Cymplee Rd	Locally controlled	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Intersection from adjacent approaches
1	Car/Station wagon	Go straight ahead	9681	Property damage only	2010 July	Thursday	4	Multi-vehicle	Angle	-27.55749352	151.9437698	Russell St	Juliet St	Locally controlled	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Darkness - Lighted	Straight	Level	Intersection from adjacent approaches
1	Car/Station wagon	Go straight ahead	9682	Hospitalisation	2010 September	Thursday	18	Multi-vehicle	Angle	-27.94383515	153.4064593	Imperial Pde	Muir St	Locally controlled	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Darkness - Lighted	Straight	Level	Intersection from adjacent approaches
1	Car/Station wagon	Go straight ahead	9693	Property damage only	2010 June	Wednesday	18	Multi-vehicle	Angle	-27.68605175	153.1205331	Logan Reserve Rd	Muchow Rd	Locally controlled	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Darkness - Lighted	Straight	Level	Intersection from adjacent approaches
1	Car/Station wagon	Go straight ahead	9719	Property damage only	2010 November	Wednesday	9	Multi-vehicle	Angle	-26.79432099	153.1428052	Edmund St	William St	Locally controlled	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Grade	Intersection from adjacent approaches
1	Car/Station wagon	Go straight ahead	9726	Property damage only	2010 May	Friday	9	Multi-vehicle	Angle	-24.8703467	152.3595501	George St	Walla St	Locally controlled	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Intersection from adjacent approaches
1	Car/Station wagon	Go straight ahead	9731	Hospitalisation	2010 June	Monday	17	Multi-vehicle	Angle	-26.3911585	153.0347782	Mooringd St	Poinclana Ave	Locally controlled	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Dawn/Dusk	Straight	Grade	Opposing vehicles turning
1	Car/Station wagon	Go straight ahead	9745	Medical treatment	2010 August	Friday	15	Multi-vehicle	Angle	-26.1129415	153.4584449	Malabar Ave	Nine Elms St	Locally controlled	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Intersection from adjacent approaches
1	Car/Station wagon	Go straight ahead	9755	Hospitalisation	2010 July	Wednesday	11	Multi-vehicle	Angle	-24.873907	152.3595691	George St	Rutherford St	Locally controlled	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Intersection from adjacent approaches
1	Car/Station wagon	Go straight ahead	9756	Medical treatment	2010 September	Sunday	18	Multi-vehicle	Angle	-26.841357	153.0974693	Bledisloe Blvd	Waller Rd	Locally controlled	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Dawn/Dusk	Straight	Level	Intersection from adjacent approaches
1	Car/Station wagon	Go straight ahead	9761	Minor injury	2010 November	Tuesday	11	Multi-vehicle	Angle	-27.56246862	151.932143	Anzac Ave	Hursley Rd	Locally controlled	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Intersection from adjacent approaches
1	Car/Station wagon	Go straight ahead	9783	Property damage only	2010 July	Sunday	12	Multi-vehicle	Angle	-26.66368143	153.0934189	Norval Ct	Trinder Ave	Locally controlled	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Intersection from adjacent approaches
1	Car/Station wagon	Go straight ahead	9794	Property damage only	2010 August	Thursday	16	Multi-vehicle	Angle	-27.50417504	153.0929221	Gallipoli Rd	Winstanley St	Locally controlled	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Intersection from adjacent approaches
1	Car/Station wagon	Go straight ahead	9803	Hospitalisation	2010 November	Tuesday	15	Multi-vehicle	Angle	-25.28730394	152.8312192	Beach Rd	Maryborough - Hervey Bay Rd	State controlled	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Grade	Intersection from adjacent approaches
1	Car/Station wagon	Go straight ahead	9810	Property damage only	2010 May	Saturday	21	Multi-vehicle	Angle	-21.16251703	149.1834708	Bridge Rd	Kilner St	Locally controlled	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Darkness - Lighted	Straight	Level	Intersection from adjacent approaches
1	Car/Station wagon	Go straight ahead	9822	Property damage only	2010 June	Tuesday	14	Multi-vehicle	Angle	-19.30451328	146.7406778	Bamford La	Charles St	Locally controlled	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Intersection from adjacent approaches
1	Car/Station wagon	Go straight ahead	9826	Minor injury	2010 May	Thursday	7	Multi-vehicle	Angle	-16.92005666	145.7602879	Gatton St	Severin St	Locally controlled	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Intersection from adjacent approaches
1	Car/Station wagon	Go straight ahead	9828	Medical treatment	2010 June	Saturday	8	Multi-vehicle	Angle	-27.59740327	153.0441846	Hellawell Rd	Jackson Rd	Locally controlled	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Intersection from adjacent approaches
1	Car/Station wagon	Go straight ahead	9847	Minor injury	2010 June	Thursday	17	Multi-vehicle	Angle	-24.86910785	152.3473892	Maryborough St	Woodmoosa St	Locally controlled	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Dawn/Dusk	Straight	Level	Intersection from adjacent approaches
1	Car/Station wagon	Go straight ahead	9856	Medical treatment	2010 July	Thursday	11	Multi-vehicle	Angle	-26.8228997	153.110294	Pelican Waters Blvd	Sir Joseph Banks Dr	Locally controlled	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Intersection from adjacent approaches
1	Car/Station wagon	Go straight ahead	9859	Property damage only	2010 August	Friday	17	Multi-vehicle	Angle	-27.46840984	153.0479065	Bransell St	St James St	Locally controlled	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Opposing vehicles turning
1	Car/Station wagon	Go straight ahead	9883	Property damage only	2010 September	Friday	17	Multi-vehicle	Angle	-16.92024466	145.7601228	Gatton St	Severin St	Locally controlled	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Dawn/Dusk	Straight	Level	Intersection from adjacent approaches
1	Car/Station wagon	Go straight ahead	9894	Property damage only	2010 September	Monday	21	Multi-vehicle	Angle	-27.52415801	153.2558695	Capalaba - Cleveland Rd (1/04)	Wellington St	State controlled	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Darkness - Lighted	Straight	Level	Intersection from adjacent approaches
1	Car/Station wagon	Go straight ahead	9910	Medical treatment	2010 March	Wednesday	17	Multi-vehicle	Angle	-27.92619283	153.3247453	Binstead Wy	Pacific Pines Blvd	Locally controlled	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Opposing vehicles turning
1	Car/Station wagon	Go straight ahead	9973	Property damage only	2010 October	Sunday	11	Multi-vehicle	Angle	-27.17939102	153.0152946	Old Bay Rd	Warroo Dr	Locally controlled	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Opposing vehicles turning
1	Car/Station wagon	Go straight ahead	10014	Minor injury	2010 August	Sunday	14	Multi-vehicle	Angle	-27.55764452	151.9437288	Russell St	West St	Locally controlled	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Intersection from adjacent approaches
1	Car/Station wagon	Go straight ahead	10019	Property damage only	2010 July	Sunday	18	Multi-vehicle	Angle	-23.38609455	150.5008242	Canning St	Denham St	Locally controlled	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Darkness - Lighted	Straight	Level	Intersection from adjacent approaches
1	Car/Station wagon	Go straight ahead	10020	Property damage only	2010 June	Tuesday	12	Multi-vehicle	Angle	-27.3130543	153.0984708	Bransell St	Kilmer Rd W (Use 41024)	Locally controlled	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Darkness - Lighted	Straight	Level	Opposing vehicles turning
1	Car/Station wagon	Go straight ahead	10033	Property damage only	2010 September	Saturday	16	Multi-vehicle	Angle	-24.85907187	152.3445741	Gavin St	Queen St	State controlled	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Intersection from adjacent approaches
1	Car/Station wagon	Go straight ahead	10047	Property damage only	2010 October	Monday	12	Multi-vehicle	Angle	-27.58124527	151.9710766	Mackenzie St	South St	Locally controlled	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Intersection from adjacent approaches
1	Car/Station wagon	Go straight ahead	10049	Medical treatment	2010 October	Tuesday	13	Multi-vehicle	Angle	-19.29375229	146.7431118	Bamford La	Mill Dr	Locally controlled	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Intersection from adjacent approaches
1	Car/Station wagon	Go straight ahead	10057	Hospitalisation	2010 April	Tuesday	10	Multi-vehicle	Angle	-21.16242103	149.1833128	Bridge Rd	Casey Ave	Locally controlled	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Intersection from adjacent approaches
1	Car/Station wagon	Go straight ahead	10059	Minor injury	2010 August	Sunday	16	Multi-vehicle	Angle	-23.84881717	151.2594243	Goodson St	Tank St	Locally controlled	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Intersection from adjacent approaches
1	Car/Station wagon	Go straight ahead	10067	Minor injury	2010 March	Saturday	6	Multi-vehicle	Angle	-27.46840984	153.0479065	Bransell St	Sydney St	Locally controlled	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Opposing vehicles turning
1	Car/Station wagon	Go straight ahead	10082	Property damage only	2010 August	Tuesday	9	Multi-vehicle	Angle	-27.5576152	151.9437268	Anzac Ave	West St	Locally controlled	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Opposing vehicles turning
1	Car/Station wagon	Go straight ahead	10098	Medical treatment	2010 October	Wednesday	9	Multi-vehicle	Angle	-19.30321423	146.8122749	Oonoomba Rd	River Bvd	Locally controlled	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Intersection from adjacent approaches
1	Car/Station wagon	Go straight ahead	10167	Property damage only	2010 May	Sunday	20	Multi-vehicle	Angle	-23.38269955	150.4982053	Archer St	Canning St	Locally controlled	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Darkness - Lighted	Straight	Level	Intersection from adjacent approaches
1	Car/Station wagon	Go straight ahead	10176	Hospitalisation	2010 July	Saturday	6	Multi-vehicle	Angle	-27.52390501	153.2559098	Capalaba - Cleveland Rd (1/04)	Wellington St	State controlled	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Dawn/Dusk	Straight	Level	Intersection from adjacent approaches
1	Car/Station wagon	Go straight ahead	10195	Property damage only	2010 June	Thursday	11	Multi-vehicle	Angle	-27.40113987	152.9975576	Redwood St	Trouts Rd	Locally controlled	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Intersection from adjacent approaches
1	Car/Station wagon	Go straight ahead	10246	Medical treatment	2010 March	Wednesday	6	Multi-vehicle	Angle	-27.53886766	151.9317997	North St	Tor St	Locally controlled	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Intersection from adjacent approaches
1	Car/Station wagon	Go straight ahead	10250	Hospitalisation	2010 July	Friday	17	Multi-vehicle	Angle	-27.56263562	151.9321712	Anzac Ave	Hursley Rd	Locally controlled	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Dawn/Dusk	Straight	Level	Opposing vehicles turning
1	Car/Station wagon	Go straight ahead	10279	Minor injury	2010 June	Thursday	15	Multi-vehicle	Angle	-28.02986405	153.4166879	Rio Vista Blvd	Rudd St	Locally controlled	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Intersection from adjacent approaches
1	Car/Station wagon	Go straight ahead	10290	Property damage only	2010 July	Sunday	18	Multi-vehicle	Angle</														

1	Articulated truck	Go straight ahead	9200	Property damage only	2010 January	Sunday	11	Multi-vehicle	Angle	-27.56432812	151.915032	Glenvale Rd	Greenwattle St	Locally controlled	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Wet	Raining	Daylight	Straight	Level	Intersection from adjacent approaches
1	Bicycle	Go straight ahead	9909	Medical treatment	2010 December	Monday	16	Multi-vehicle	Angle	-27.58654643	152.7609257	Connors St	Simmons Rd	Locally controlled	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Wet	Raining	Daylight	Straight	Level	Intersection from adjacent approaches
1	Bicycle	Go straight ahead	10181	Medical treatment	2010 March	Monday	8	Multi-vehicle	Angle	-19.30478722	146.71783	Golf Links Dr	Sandstone Dr	Locally controlled	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Wet	Raining	Daylight	Straight	Level	Vehicle leaving driveway
1	Bus/Coach	Go straight ahead	9916	Property damage only	2010 June	Wednesday	3	Multi-vehicle	Angle	-26.6835969	153.1179376	Brisbane Ave	Foote St	Locally controlled	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Wet	Raining	Darkness - Lighted	Curved - view open	Level	Intersection from adjacent approaches
1	Bus/Coach	Make right turn	9432	Property damage only	2010 August	Wednesday	8	Multi-vehicle	Angle	-28.38964755	150.5032222	Canning St	Deerby St	Locally controlled	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Wet	Raining	Daylight	Straight	Level	Intersection from adjacent approaches
1	Car/Station wagon	Go straight ahead	8933	Property damage only	2010 December	Wednesday	8	Multi-vehicle	Angle	-19.31575823	146.7926332	Macarthur Dr	William Angliss Dr	Locally controlled	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Wet	Raining	Darkness - Lighted	Curved - view obscured	Level	Vehicle leaving driveway
1	Car/Station wagon	Go straight ahead	9168	Property damage only	2010 January	Saturday	2	Multi-vehicle	Angle	-27.99866152	153.4235818	Stanhild Rd	Thomas Dr	Locally controlled	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Wet	Raining	Darkness - Lighted	Straight	Level	Opposing vehicles turning
1	Car/Station wagon	Go straight ahead	9438	Property damage only	2010 December	Saturday	18	Multi-vehicle	Angle	-27.58667235	151.9623798	Alderley St	Ramsay St	Locally controlled	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Wet	Raining	Darkness - Lighted	Straight	Level	Intersection from adjacent approaches
1	Car/Station wagon	Go straight ahead	9480	Property damage only	2010 November	Thursday	19	Multi-vehicle	Angle	-27.58667035	151.9623948	Alderley St	Ramsay St	Locally controlled	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Wet	Raining	Darkness - Lighted	Straight	Grade	Intersection from adjacent approaches
1	Car/Station wagon	Go straight ahead	9501	Property damage only	2010 December	Friday	12	Multi-vehicle	Angle	-19.26431324	146.8219426	Morehead St	Morey St	Locally controlled	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Wet	Raining	Daylight	Curved - view open	Level	Intersection from adjacent approaches
1	Car/Station wagon	Go straight ahead	9591	Medical treatment	2010 October	Monday	20	Multi-vehicle	Angle	-27.61166084	152.9719578	College Ave	Joseph Banks Ave	Locally controlled	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Wet	Raining	Darkness - Lighted	Straight	Grade	Intersection from adjacent approaches
1	Car/Station wagon	Go straight ahead	9608	Medical treatment	2010 February	Tuesday	19	Multi-vehicle	Angle	-19.57195247	147.4102056	Moxmillan St	Soper St	Locally controlled	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Wet	Raining	Darkness - Lighted	Straight	Level	Intersection from adjacent approaches
1	Car/Station wagon	Go straight ahead	9701	Minor injury	2010 July	Tuesday	21	Multi-vehicle	Angle	-27.22108643	153.08616	Boardman Rd	Klingner Rd	Locally controlled	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Wet	Raining	Darkness - Lighted	Straight	Level	Intersection from adjacent approaches
1	Car/Station wagon	Go straight ahead	9733	Property damage only	2010 September	Monday	6	Multi-vehicle	Angle	-27.16166954	152.9580034	Burpengary Rd	Henderson Rd	Locally controlled	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Wet	Raining	Daylight	Straight	Level	Intersection from adjacent approaches
1	Car/Station wagon	Go straight ahead	9845	Property damage only	2010 May	Friday	19	Multi-vehicle	Angle	-27.59743027	153.0442926	Hellawell Rd	Jackson Rd	Locally controlled	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Wet	Raining	Darkness - Lighted	Straight	Level	Head-on
1	Car/Station wagon	Go straight ahead	9871	Property damage only	2010 July	Wednesday	0	Multi-vehicle	Angle	-27.97653726	153.3885388	Balley Cres	Southport - Nerang Rd	State controlled	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Wet	Raining	Darkness - Lighted	Straight	Level	Intersection from adjacent approaches
1	Car/Station wagon	Go straight ahead	9934	Medical treatment	2010 November	Monday	8	Multi-vehicle	Angle	-27.93071496	153.3069766	Pitcairn Wy	Salvado Dr	Locally controlled	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Wet	Raining	Daylight	Straight	Level	Intersection from adjacent approaches
1	Car/Station wagon	Go straight ahead	9975	Property damage only	2010 December	Monday	8	Multi-vehicle	Angle	-27.2133856	153.0639442	Morris Rd	Wattle Rd	Locally controlled	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Wet	Raining	Daylight	Straight	Level	Intersection from adjacent approaches
1	Car/Station wagon	Go straight ahead	10024	Property damage only	2010 September	Thursday	11	Multi-vehicle	Angle	-27.99807904	153.4203295	Burra St	Thomas Dr	Locally controlled	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Wet	Raining	Daylight	Straight	Level	Intersection from adjacent approaches
1	Car/Station wagon	Go straight ahead	10122	Medical treatment	2010 May	Tuesday	5	Multi-vehicle	Angle	-27.62741185	152.968926	Ascot Ave	Grand Ave	Locally controlled	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Wet	Clear	Dawn/Dusk	Curved - view open	Level	Opposing vehicles turning
1	Car/Station wagon	Go straight ahead	10205	Property damage only	2010 March	Tuesday	14	Multi-vehicle	Angle	-26.68573728	153.0505278	Ballinger Rd	Mooloolaba Rd	State controlled	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Wet	Raining	Daylight	Straight	Level	Intersection from adjacent approaches
1	Car/Station wagon	Go straight ahead	10318	Property damage only	2010 October	Tuesday	19	Multi-vehicle	Angle	-27.24552312	152.9920365	Ann St	Old Gympie Rd	Locally controlled	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Wet	Raining	Darkness - Lighted	Straight	Level	Intersection from adjacent approaches
1	Car/Station wagon	Go straight ahead	10354	Property damage only	2010 March	Saturday	20	Multi-vehicle	Angle	-23.37545856	150.5096661	Archer St	Bolsover St	Locally controlled	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Wet	Raining	Darkness - Lighted	Straight	Level	Intersection from adjacent approaches
1	Car/Station wagon	Go straight ahead	10379	Medical treatment	2010 October	Friday	22	Multi-vehicle	Angle	-26.79441798	153.1427842	Edmund St	William St	Locally controlled	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Wet	Raining	Darkness - Lighted	Straight	Level	Intersection from adjacent approaches
1	Car/Station wagon	Go straight ahead	10768	Medical treatment	2010 May	Friday	22	Multi-vehicle	Angle	-27.71615919	153.2018461	James St	Manangle St	Locally controlled	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Wet	Raining	Darkness - Lighted	Straight	Level	Intersection from adjacent approaches
1	Car/Station wagon	Make left turn	8674	Medical treatment	2010 July	Thursday	5	Multi-vehicle	Angle	-27.68252281	153.1117762	Browns Plains Rd	Chambers Flat Rd	Locally controlled	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Wet	Raining	Darkness - Lighted	Curved - view open	Level	Intersection from adjacent approaches
1	Car/Station wagon	Make left turn	9647	Hospitalisation	2010 July	Tuesday	8	Multi-vehicle	Angle	-16.91860265	145.7728777	Florence St	Lake St	Locally controlled	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Wet	Raining	Daylight	Curved - view open	Level	Intersection from adjacent approaches
1	Car/Station wagon	Make left turn	9955	Minor injury	2010 March	Saturday	12	Multi-vehicle	Angle	-23.34419058	150.5285788	Kerrigan St	Moore's Creek Rd	Locally controlled	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Wet	Raining	Daylight	Straight	Level	Lane changes
1	Car/Station wagon	Make right turn	8195	Medical treatment	2010 October	Sunday	18	Multi-vehicle	Angle	-27.17465772	152.9330728	Creekside Dr	Young Rd	Locally controlled	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Wet	Raining	Darkness - Lighted	Straight	Level	Opposing vehicles turning
1	Car/Station wagon	Make right turn	8350	Hospitalisation	2010 January	Friday	17	Multi-vehicle	Angle	-27.66790825	152.918168	Springfield Lakes Blvd	The Promenade	Locally controlled	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Wet	Clear	Dawn/Dusk	Curved - view obscured	Level	Intersection from adjacent approaches
1	Car/Station wagon	Make right turn	10172	Property damage only	2010 March	Sunday	18	Multi-vehicle	Angle	-21.16250404	149.1834318	Bridge Rd	Juliet St	Locally controlled	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Wet	Clear	Darkness - Lighted	Straight	Level	Intersection from adjacent approaches
1	Utility/Panel van	Go straight ahead	7993	Property damage only	2010 July	Friday	20	Multi-vehicle	Angle	-27.63095472	153.0375715	Pacific Hwy Service Rd (W)	Springwood Connection Rd (1/95)	State controlled	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Wet	Raining	Darkness - Lighted	Curved - view open	Level	Intersection from adjacent approaches
1	Utility/Panel van	Go straight ahead	9707	Minor injury	2010 March	Wednesday	7	Multi-vehicle	Angle	-27.49795238	153.0421369	Logan Rd (1/95)	O'Keefe St	Locally controlled	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Wet	Raining	Daylight	Straight	Level	Opposing vehicles turning
1	Utility/Panel van	Go straight ahead	9812	Property damage only	2010 October	Sunday	16	Multi-vehicle	Angle	-27.51871381	153.2872674	Paxton St	Shore St N	Locally controlled	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Wet	Raining	Daylight	Straight	Level	Intersection from adjacent approaches
1	Utility/Panel van	Go straight ahead	9948	Property damage only	2010 February	Thursday	21	Multi-vehicle	Angle	-25.28327272	152.843596	Taylor St	Torquay Rd	Locally controlled	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Wet	Raining	Darkness - Lighted	Straight	Level	Intersection from adjacent approaches
1	Utility/Panel van	Go straight ahead	10091	Minor injury	2010 February	Sunday	14	Multi-vehicle	Angle	-27.55764152	151.9437428	Russell St	West St	Locally controlled	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Wet	Raining	Daylight	Straight	Level	Intersection from adjacent approaches
1	Utility/Panel van	Go straight ahead	10161	Property damage only	2010 August	Monday	15	Multi-vehicle	Angle	-27.58664135	151.9621948	Alderley St	Ramsay St	Locally controlled	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Wet	Raining	Daylight	Straight	Level	Intersection from adjacent approaches
1	Utility/Panel van	Go straight ahead	10220	Property damage only	2010 August	Friday	15	Multi-vehicle	Angle	-27.56730296	151.9708965	Lund Rd	Manangle St	Locally controlled	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Wet	Raining	Daylight	Straight	Level	Intersection from adjacent approaches
1	Utility/Panel van	Make left turn	10389	Property damage only	2010 February	Friday	5	Multi-vehicle	Angle	-27.65429561	153.1635322	Murrays Rd	Pacific Hwy Service Rd (W)	Locally controlled	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Wet	Raining	Daylight	Curved - view open	Level	Intersection from adjacent approaches
1	Utility/Panel van	Make right turn	9092	Medical treatment	2010 December	Thursday	13	Multi-vehicle	Angle	-27.49798437	153.0421509	Logan Rd (1/95)	O'Keefe St	Locally controlled	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Wet	Raining	Daylight	Straight	Level	Intersection from adjacent approaches
1	Utility/Panel van	Make right turn	10131	Medical treatment	2010 April	Tuesday	18	Multi-vehicle	Angle	-27.65249645	153.173443	Plantain Rd	Shailer Rd	Locally controlled	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Wet	Raining	Darkness - Lighted	Curved - view obscured	Dip	Intersection from adjacent approaches
1	Car/Station wagon	Go straight ahead	9148	Property damage only	2010 January	Wednesday	9	Multi-vehicle	Angle	-19.28413231	146.7500177	Angus Ave	Garbutt - Upper Ross Rd	State controlled	Intersection - Roundabout	Give way sign	70 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Intersection from adjacent approaches
1	Car/Station wagon	Go straight ahead	10283	Hospitalisation	2010 February	Monday	5	Multi-vehicle	Angle	-27.67193502	153.0747727	Bayliss Rd	Browns Plains Rd	Locally controlled	Intersection - Roundabout	Give way sign	70 km/h	Sealed - Dry	Clear	Dawn/Dusk	Curved - view open	Level	Intersection from adjacent approaches
1	Car/Station wagon	Make left turn	9313	Medical treatment	2010 December	Sunday	9	Multi-vehicle	Angle	-27.87720962	153.2623023	Hope Island Rd (1/04)	Sickle Ave	State controlled	Intersection - Roundabout	Give way sign	70 km/h	Sealed - Dry	Clear	Daylight	Curved - view open	Level	Intersection from adjacent approaches
1	Car/Station wagon	Make right turn	7483	Medical treatment	2010 June	Friday	14	Multi-vehicle	Angle	-27.65750506	153.0615005	Hope Island Rd	Springwood Connection Rd (1/95)	State controlled	Intersection - Roundabout	Give way sign	70 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Vehicle leaving driveway
1	Car/Station wagon	Make right turn	10281	Medical treatment	2010 March	Saturday	14	Multi-vehicle	Angle	-27.65693749	152.8894814	Augusta Pkwy	Santa Monica Dr	Locally controlled	Intersection - Roundabout	Give way sign	70 km/h	Sealed - Dry	Clear	Daylight	Straight	Grade	Intersection from adjacent approaches
1	Car/Station wagon	Go straight ahead	9380	Hospitalisation	2010 December	Monday	22	Multi-vehicle	Angle	-27.22134843	153.086531	Boardman Rd	Klingner Rd	Locally controlled	Intersection - Roundabout	Give way sign	70 km/h	Sealed - Wet	Raining	Darkness - Lighted	Straight	Level	Intersection from adjacent approaches
1	Car/Station wagon	Make right turn	9068	Property damage only	2010 February	Tuesday	13	Multi-vehicle	Angle	-19.3198342	146.7158921	Beck Rd	Hervey's Range Developmental Rd	State controlled	Intersection - Roundabout	Give way sign	70 km/h	Sealed - Wet	Raining	Daylight	Straight	Level	Intersection from adjacent approaches
1	Car/Station wagon	Go straight ahead	10374	Hospitalisation	2010 September	Wednesday	16	Multi-vehicle	Angle	-19.31757023	146.7928572	Bruce Hwy	Macarthur Dr	State controlled	Intersection - Roundabout	Give way sign	80 - 90 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Intersection from adjacent approaches
1	Car/Station wagon	Make right turn	9440	Minor injury	2010 June	Thursday	16	Multi-vehicle	Angle	-16.88534782	145.7043313	Brinsmead Rd	Stratford Connection Rd (Aka Kamerunga)	State controlled	Intersection - Roundabout	Give way sign	80 - 90 km/h	Sealed - Dry	Clear	Daylight	Curved - view open	Level	Intersection from adjacent approaches
1	Car/Station wagon	Make right turn	10270	Property damage only	2010 August	Monday	19	Multi-vehicle	Angle	-27.52609363	153.1588993	Mt Gravatt - Capelaba Rd	Tilley Rd	Locally controlled	Intersection - Roundabout	Give way sign	80 - 90 km/h	Sealed - Dry	Clear	Darkness - Lighted	Straight	Level	Intersection from adjacent approaches
1	Bus/Coach	Go straight ahead	8529	Minor injury	2010 February	Monday	16	Multi-vehicle	Angle	-28.081125	153.3621978	Laker Dr	Rocklea Parkway	State controlled	Intersection - Roundabout	Give way sign	0 - 50 km/h	Sealed - Dry	Clear	Daylight	Curved - view open	Level	Intersection from adjacent approaches
2	Car/Station wagon	Go straight ahead	8529	Minor injury	2010 February	Monday	7	Multi-vehicle	Angle	-26.53784478	151.8282148	First Ave	Holy St	Locally controlled	Intersection - Roundabout	Give way sign	0 - 50 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Opposing vehicles turning
2	Car/Station wagon	Go straight ahead	8957	Property damage only	2010 May	Friday	6	Multi-vehicle	Angle	-16.99728803	145.4231888	Mareeba - Dimbulah Rd	Rankin St	State controlled	Intersection - Roundabout	Give way sign	0 - 50 km/h	Sealed - Dry	Clear	Dawn/Dusk	Straight	Level	Intersection from adjacent approaches
2	Car/Station wagon	Go straight ahead	9039	Hospitalisation	2010 January	Friday	14	Multi-vehicle	Angle	-21.15287991	149.1703535	Field St	Perry St	Locally controlled	Intersection - Roundabout	Give way sign	0 - 50 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Intersection from adjacent approaches
2	Car/Station wagon	Go straight ahead	9562	Medical treatment	2010 September	Tuesday	20	Multi-vehicle	Angle	-23.5266296	148.1637253	Egerton St	Opal St	Locally controlled	Intersection - Roundabout	Give way sign	0 - 50 km/h	Sealed - Dry	Clear	Darkness - Lighted	Straight	Level	Intersection from adjacent approaches
2	Car/Station wagon	Go straight ahead	9754	Property damage only	2010 June	Thursday	19	Multi-vehicle	Angle	-27.36525971	153.0265569	Kirby Rd	Robinson Rd W	Locally controlled	Intersection - Roundabout	Give way sign	0 - 50 km/h	Sealed - Dry	Clear	Darkness - Lighted	Straight	Crest	Intersection from adjacent approaches
2	Car/Station wagon	Go straight ahead	9988	Medical treatment	2010 March	Friday	14	Multi-vehicle	Angle	-27.72174225	153.1948743	Boulevard - Beenleigh Rd	Beenleigh Connection Rd	State controlled	Intersection - Roundabout	Give way sign	0 - 50 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Intersection from adjacent approaches
2	Car/Station wagon	Go straight ahead	10062	Property damage only	2010 May	Monday	8	Multi-vehicle	Angle	-23.44121638	144.2497718	Duck St	Eagle St	Locally controlled	Intersection - Roundabout								

2	Car/Station wagon	Go straight ahead	10231	Medical treatment	2010	July	Tuesday	5	Multi-vehicle	Angle	-27.58745984	153.1233603	Priestdale Rd	Rosedale Rd	Locally controlled	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Dawn/Dusk	Straight	Level	Intersection from adjacent approaches
2	Car/Station wagon	Go straight ahead	10243	Medical treatment	2010	October	Thursday	7	Multi-vehicle	Angle	-28.07232638	153.364305	Highfield Dr	Robina Town Centre Dr	State controlled	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Curved - view open	Grade	Opposing vehicles turning
2	Car/Station wagon	Go straight ahead	10276	Property damage only	2010	May	Monday	15	Multi-vehicle	Angle	-16.93250563	145.7738508	Draper St	Port Connection Rd (1/04)	State controlled	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Intersection from adjacent approaches
2	Car/Station wagon	Go straight ahead	10296	Property damage only	2010	November	Monday	9	Multi-vehicle	Angle	-19.27202834	146.7500937	Banfield Dr	Bayswater Rd	Locally controlled	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Intersection from adjacent approaches
2	Car/Station wagon	Go straight ahead	10325	Property damage only	2010	July	Friday	17	Multi-vehicle	Angle	-19.26340233	146.7678844	Ingham Rd	Pikington St	Locally controlled	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Dawn/Dusk	Straight	Level	Intersection from adjacent approaches
2	Car/Station wagon	Go straight ahead	10327	Medical treatment	2010	March	Tuesday	14	Multi-vehicle	Angle	-27.92658502	153.2998096	Gaven Arterial Rd	Greenway Blvd	Locally controlled	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Curved - view open	Level	Intersection from adjacent approaches
2	Car/Station wagon	Go straight ahead	10399	Hospitalisation	2010	February	Monday	5	Multi-vehicle	Angle	-27.47755193	152.9805916	Mt Cool-Tha Rd	Western Arterial Rd (1/04)	State controlled	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Fog	Dawn/Dusk	Straight	Level	Opposing vehicles turning
2	Car/Station wagon	Go straight ahead	10532	Medical treatment	2010	July	Wednesday	20	Multi-vehicle	Angle	-27.51251949	153.0218053	Fairfield Rd	Venner Rd	Locally controlled	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Darkness - Lighted	Curved - view obscured	Dip	Intersection from adjacent approaches
2	Car/Station wagon	Go straight ahead	10668	Property damage only	2010	June	Monday	18	Multi-vehicle	Angle	-27.06655559	153.1494407	Benabrow Ave	Warana Ave	Locally controlled	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Darkness - Lighted	Curved - view open	Level	Opposing vehicles turning
2	Car/Station wagon	Make left turn	9098	Hospitalisation	2010	January	Thursday	14	Multi-vehicle	Angle	-28.06896844	153.3877874	Cheltenham Dr	Peach Dr	Locally controlled	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Parallel lanes turning
2	Car/Station wagon	Make left turn	9341	Minor injury	2010	December	Friday	8	Multi-vehicle	Angle	-27.47828887	152.9852075	Frederick St	Milton Rd	State controlled	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Dip	Parallel lanes turning
2	Car/Station wagon	Make left turn	9594	Medical treatment	2010	September	Thursday	6	Multi-vehicle	Angle	-27.33074556	153.0456574	Deput Rd	Telegraph Rd	State controlled	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Curved - view open	Level	Opposing vehicles turning
2	Car/Station wagon	Make left turn	9595	Minor injury	2010	August	Thursday	11	Multi-vehicle	Angle	-24.88793519	152.3151558	Dittmann Rd	Twyford St	State controlled	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Intersection from adjacent approaches
2	Car/Station wagon	Make left turn	9702	Medical treatment	2010	November	Friday	17	Multi-vehicle	Angle	-16.9032177	145.7603058	Lake St	Lily St	Locally controlled	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Intersection from adjacent approaches
2	Car/Station wagon	Make left turn	9715	Medical treatment	2010	May	Saturday	17	Multi-vehicle	Angle	-17.01946716	145.7430204	Mill Rd	Mount Peter Rd	Locally controlled	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Dawn/Dusk	Curved - view open	Level	Parallel lanes turning
2	Car/Station wagon	Make left turn	10058	Medical treatment	2010	October	Saturday	19	Multi-vehicle	Angle	-19.30235526	146.7768934	Burt St	Thompson St	Locally controlled	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Darkness - Lighted	Straight	Level	Intersection from adjacent approaches
2	Car/Station wagon	Make left turn	10069	Hospitalisation	2010	April	Friday	10	Multi-vehicle	Angle	-16.91309067	145.7549639	Anderson St	Martyn St	State controlled	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Intersection from adjacent approaches
2	Car/Station wagon	Make left turn	10260	Minor injury	2010	May	Friday	14	Multi-vehicle	Angle	-27.85278197	153.3289194	Finnegan Way	Foxwell Rd	Locally controlled	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Intersection from adjacent approaches
2	Car/Station wagon	Make right turn	10310	Medical treatment	2010	July	Monday	15	Multi-vehicle	Angle	-27.34513018	152.9658266	Old Northern Rd	South Pine Rd (1/04)	State controlled	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Intersection from adjacent approaches
2	Car/Station wagon	Make right turn	7988	Hospitalisation	2010	August	Friday	18	Multi-vehicle	Angle	-19.29970526	146.7360099	Burnda St	Garbutt - Upper Ross Rd	State controlled	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Darkness - Lighted	Straight	Level	Intersection from adjacent approaches
2	Car/Station wagon	Make right turn	8890	Minor injury	2010	March	Monday	7	Multi-vehicle	Angle	-19.30910124	146.7317059	Garbutt - Upper Ross Rd	Hinchinbrook Dr	State controlled	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Intersection from adjacent approaches
2	Car/Station wagon	Make right turn	9245	Medical treatment	2010	May	Friday	15	Multi-vehicle	Angle	-22.85187891	152.3414621	Bundaberg - Gin Gin Rd	Isis Hwy	State controlled	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Intersection from adjacent approaches
2	Car/Station wagon	Make right turn	9245	Property damage only	2010	April	Tuesday	14	Multi-vehicle	Angle	-19.28962326	146.7903711	Fulham Rd	Kings Rd	Locally controlled	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Intersection from adjacent approaches
2	Car/Station wagon	Make right turn	9406	Property damage only	2010	December	Thursday	11	Multi-vehicle	Angle	-19.31989719	146.7159661	Hervey'S Range Developmental Rd	North Beck Dr (1/10)	State controlled	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Intersection from adjacent approaches
2	Car/Station wagon	Make right turn	9565	Hospitalisation	2010	August	Thursday	14	Multi-vehicle	Angle	-27.92141524	153.3987531	Limefree Pde	Merala Ave	Locally controlled	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Intersection from adjacent approaches
2	Car/Station wagon	Make right turn	9649	Hospitalisation	2010	September	Wednesday	17	Multi-vehicle	Angle	-27.24752997	153.0098443	Redcliffe Rd	Winzar Dr	State controlled	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Parallel lanes turning
2	Car/Station wagon	Make right turn	9661	Property damage only	2010	September	Thursday	6	Multi-vehicle	Angle	-27.58061728	153.0474384	Beenleigh Rd	Jackson Rd	Locally controlled	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Intersection from adjacent approaches
2	Car/Station wagon	Make right turn	9721	Medical treatment	2010	August	Tuesday	7	Multi-vehicle	Angle	-27.7054302	153.203457	Pacific Hwy Off Ramp (Southbound)	Pacific Hwy Roundabout	State controlled	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Curved - view open	Grade	Intersection from adjacent approaches
2	Car/Station wagon	Make right turn	9811	Medical treatment	2010	August	Saturday	11	Multi-vehicle	Angle	-16.91299668	145.7546999	Anderson St	Martyn St	State controlled	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Other
2	Car/Station wagon	Make right turn	9881	Minor injury	2010	August	Thursday	10	Multi-vehicle	Angle	-26.67316166	152.9979004	Bruce Hwy Roundabout	Nambour Connection Rd	State controlled	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Curved - view open	Level	Intersection from adjacent approaches
2	Car/Station wagon	Make right turn	9887	Property damage only	2010	August	Saturday	11	Multi-vehicle	Angle	-26.40753114	153.0484882	Eumundi - Noosa Rd	Goodchap St	Locally controlled	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Intersection from adjacent approaches
2	Car/Station wagon	Make right turn	9920	Minor injury	2010	June	Monday	12	Multi-vehicle	Angle	-19.29969627	146.7359709	Kawana Island Blvd	Garbutt - Upper Ross Rd	State controlled	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Intersection from adjacent approaches
2	Car/Station wagon	Make right turn	9991	Property damage only	2010	April	Thursday	9	Multi-vehicle	Angle	-26.62292138	153.0404203	Maroochydhore - Noosa Rd (1/04)	Nambour - Bill Bill Rd	State controlled	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Curved - view open	Level	Opposing vehicles turning
2	Car/Station wagon	Make right turn	10015	Property damage only	2010	January	Monday	12	Multi-vehicle	Angle	-27.72113566	153.1234909	Kawana Island Blvd	Kawana Wy	State controlled	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Intersection from adjacent approaches
2	Car/Station wagon	Make right turn	10036	Property damage only	2010	March	Friday	17	Multi-vehicle	Angle	-23.34443858	150.5283308	Feez St	Moore's Creek Rd	Locally controlled	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Dawn/Dusk	Curved - view open	Level	Parallel lanes turning
2	Car/Station wagon	Make right turn	10214	Medical treatment	2010	November	Friday	8	Multi-vehicle	Angle	-19.32097725	146.7583877	Angus Smith Dr	Angus Smith Dr	State controlled	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Intersection from adjacent approaches
2	Car/Station wagon	Make right turn	10261	Hospitalisation	2010	March	Sunday	10	Multi-vehicle	Angle	-19.31652825	146.7654506	Douglas - Garbutt Rd	Yolanda Dr	State controlled	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Curved - view open	Level	Intersection from adjacent approaches
2	Car/Station wagon	Make right turn	10341	Medical treatment	2010	July	Saturday	19	Multi-vehicle	Angle	-26.41138241	153.0450892	Enrie Ck Rd	Eumundi - Noosa Rd	Locally controlled	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight - Lighted	Straight	Grade	Intersection from adjacent approaches
2	Car/Station wagon	Make right turn	10371	Minor injury	2010	December	Thursday	15	Multi-vehicle	Angle	-27.62729338	152.7597993	Ipswich - Cunningham Hwy Connection Rd	Salisbury Rd	State controlled	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Curved - view open	Level	Parallel lanes turning
2	Rigid truck	Go straight ahead	8960	Medical treatment	2010	January	Tuesday	15	Multi-vehicle	Angle	-26.67309367	152.9977704	Maroochydhore Rd	Nambour Connection Rd	State controlled	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Curved - view open	Level	Opposing vehicles turning
2	Rigid truck	Make left turn	9645	Hospitalisation	2010	February	Friday	6	Multi-vehicle	Angle	-27.73453396	153.2292388	Henry Hester Dr	Stapylton - Jacobs Well Rd	State controlled	Intersection - Roundabout	No traffic control	60 km/h	Sealed - Dry	Clear	Daylight	Curved - view open	Level	Parallel lanes turning
2	Rigid truck	Make right turn	10262	Hospitalisation	2010	March	Saturday	7	Multi-vehicle	Angle	-26.49842669	153.0920604	Emu Mountain Rd	Maroochydhore - Noosa Rd (1/04)	State controlled	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Intersection from adjacent approaches
2	Rigid truck	Make right turn	10407	Property damage only	2010	August	Friday	17	Multi-vehicle	Angle	-19.29565627	146.7364039	Garbutt - Upper Ross Rd	Greenwood Dr	State controlled	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Dawn/Dusk	Curved - view open	Level	Intersection from adjacent approaches
2	Utility/Panel van	Go straight ahead	7579	Medical treatment	2010	December	Saturday	11	Multi-vehicle	Angle	-21.14015007	149.1784966	Mangrove Rd	Victoria St	Locally controlled	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Intersection from adjacent approaches
2	Utility/Panel van	Go straight ahead	9485	Medical treatment	2010	January	Thursday	7	Multi-vehicle	Angle	-21.10066625	149.1605285	Holls Rd	Mackay - Bucasia Rd	State controlled	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Opposing vehicles turning
2	Utility/Panel van	Go straight ahead	9606	Medical treatment	2010	May	Monday	13	Multi-vehicle	Angle	-27.51250149	153.0214853	Fairfield Rd	Venner Rd	Locally controlled	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Intersection from adjacent approaches
2	Utility/Panel van	Go straight ahead	9654	Medical treatment	2010	July	Thursday	20	Multi-vehicle	Angle	-27.66092543	153.174691	Feluga St	Mandew St	Locally controlled	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Darkness - Lighted	Curved - view open	Grade	Vehicle leaving driveway
2	Utility/Panel van	Go straight ahead	9866	Property damage only	2010	July	Saturday	9	Multi-vehicle	Angle	-26.40923554	153.1064513	Edwards St	Heathland Dr	Locally controlled	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Curved - view open	Level	Intersection from adjacent approaches
2	Utility/Panel van	Go straight ahead	10418	Hospitalisation	2010	March	Tuesday	15	Multi-vehicle	Angle	-16.91659368	145.7612978	Grove St	Martyn St	Locally controlled	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Intersection from adjacent approaches
2	Utility/Panel van	Go straight ahead	11038	Medical treatment	2010	July	Monday	19	Multi-vehicle	Angle	-24.85911187	152.3446491	Bundaberg - Gin Gin Rd	Gavin St	State controlled	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Darkness - Lighted	Straight	Level	Intersection from adjacent approaches
2	Utility/Panel van	Make right turn	8020	Medical treatment	2010	August	Monday	15	Multi-vehicle	Angle	-19.29574427	146.7364068	Garbutt - Upper Ross Rd	Greenwood Dr	State controlled	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Opposing vehicles turning
2	Utility/Panel van	Make right turn	9163	Medical treatment	2010	February	Wednesday	5	Multi-vehicle	Angle	-27.47770393	152.9805786	Mt Cool-Tha Rd	Western Arterial Rd (1/04)	State controlled	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Curved - view open	Grade	Intersection from adjacent approaches
2	Utility/Panel van	Make right turn	9375	Medical treatment	2010	November	Thursday	5	Multi-vehicle	Angle	-23.87301417	151.2374137	Callemondah Rd	Dawson Hwy	State controlled	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Curved - view open	Dip	Intersection from adjacent approaches
2	Utility/Panel van	Make right turn	10093	Hospitalisation	2010	March	Wednesday	5	Multi-vehicle	Angle	-23.87043017	151.2408576	Dawson Hwy	Gladstone - Benaraby Rd	State controlled	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Dawn/Dusk	Straight	Level	Intersection from adjacent approaches
2	Utility/Panel van	Make right turn	10149	Property damage only	2010	May	Tuesday	17	Multi-vehicle	Angle	-19.30233226	146.7352279	Garbutt - Upper Ross Rd	Tavern St	State controlled	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Intersection from adjacent approaches
2	Car/Station wagon	Go straight ahead	7617	Property damage only	2010	April	Sunday	21	Multi-vehicle	Angle	-27.98792822	153.3928819	Collew St	Wardoo St	Locally controlled	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Wet	Raining	Darkness - Lighted	Straight	Level	Intersection from adjacent approaches
2	Car/Station wagon	Go straight ahead	8621	Property damage only	2010	December	Saturday	19	Multi-vehicle	Angle	-27.34492718	152.9655886	Old Northern Rd	South Pine Rd (1/04)	State controlled	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Wet	Raining	Darkness - Lighted	Straight	Level	Intersection from adjacent approaches
2	Car/Station wagon	Go straight ahead	8721	Property damage only	2010	November	Thursday	19	Multi-vehicle	Angle	-27.34511719	152.9658986	Old Northern Rd	South Pine Rd (1/04)										

12. Appendix D: Single Vehicle Crash Data

Xfall	Vehicle	Intended Movement	Direction Headed	Ref Number	Severity	Year	Month	Day	Hour	Type	Crash Nature	Latitude	Longitude	Street	Intersecting Street	Road Authority	Road Feature	Traffic Control	Crash Speed Limit	Conditions	Lighting	Horiz Alignment	Vert Alignment	Crash Description Category	
0	Car/Station wagon	Go straight ahead	East	7485	Minor injury	2010	June	Tuesday	17	Single vehicle	Hit object	-27.67360296	153.0857405	Fourth Ave	Macarthy Rd	Locally controlled	Intersection	Roundabout	Give way sign	0 - 50 km/h	Clear	Dawn/Dusk	Straight	Level	Off Path-Straight: Left Off Cway Hit Obj
0	Car/Station wagon	Go straight ahead	East	9255	Property damage only	2010	September	Saturday	16	Single vehicle	Hit object	-26.19460247	152.6736061	Mount Pleasant Rd	Red Hill Rd	Locally controlled	Intersection	Roundabout	Give way sign	60 km/h	Clear	Daylight	Straight	Crest	Off Path-Straight: Mounts Traffic Island
0	Car/Station wagon	Go straight ahead	West	9521	Fatal	2010	July	Tuesday	15	Single vehicle	Hit object	-27.65125263	153.169801	Norton Dr	Shaird Rd	Locally controlled	Intersection	Roundabout	No traffic control	60 km/h	Clear	Daylight	Straight	Grade	Off Path-Straight: Mounts Traffic Island
0	Car/Station wagon	Go straight ahead	North	9655	Medical treatment	2010	November	Friday	19	Single vehicle	Hit object	-19.29473329	146.7673195	Annie St	Barnard St	Locally controlled	Intersection	Roundabout	Give way sign	60 km/h	Clear	Darkness - Lighted	Straight	Level	Off Path-Straight: Left Off Cway Hit Obj
0	Car/Station wagon	Go straight ahead	East	9974	Property damage only	2010	July	Friday	23	Single vehicle	Hit object	-27.63687388	153.110489	Albert St	Walleri St	Locally controlled	Intersection	Roundabout	No traffic control	60 km/h	Clear	Darkness - Lighted	Straight	Level	Off Path-Straight: Left Off Cway Hit Obj
0	Car/Station wagon	Go straight ahead	North	10200	Hospitalisation	2010	August	Friday	21	Single vehicle	Hit object	-19.33929415	146.7139931	Beck Dr (Code To 93237/93238)	Gologly La	Locally controlled	Intersection	Roundabout	Give way sign	60 km/h	Clear	Darkness - Lighted	Straight	Level	Off Path-Straight: Mounts Traffic Island
0	Car/Station wagon	Go straight ahead	East	9664	Property damage only	2010	September	Friday	22	Single vehicle	Hit object	-19.39358503	146.727268	Alan John St	Dunlop St	Locally controlled	Intersection	Roundabout	Give way sign	60 km/h	Clear	Darkness - Lighted	Straight	Level	Off Path-Straight: Left Off Cway Hit Obj
0	Car/Station wagon	Go straight ahead	East	9331	Property damage only	2010	December	Friday	13	Single vehicle	Hit object	-27.63581992	152.8268541	Old Redbank Plains Rd	Redbank Plains Rd (02/13)	Locally controlled	Intersection	Roundabout	Give way sign	70 km/h	Clear	Daylight	Straight	Level	Off Path-Straight: Left Off Cway Hit Obj
0	Car/Station wagon	Make left turn	West	11020	Property damage only	2010	August	Monday	2	Single vehicle	Hit object	-16.90698755	145.8662696	Reservoir Rd	Workshop Rd	Locally controlled	Intersection	Roundabout	Give way sign	60 km/h	Clear	Darkness - Lighted	Straight	Level	Off Path-Straight: Left Off Cway Hit Obj
0	Car/Station wagon	Make right turn	South	9350	Property damage only	2010	January	Friday	10	Single vehicle	Hit object	-27.11931822	153.1777292	James St	Zander St	Locally controlled	Intersection	Roundabout	Give way sign	60 km/h	Clear	Daylight	Straight	Level	Off Path-Straight: Mounts Traffic Island
0	Car/Station wagon	Go straight ahead	East	9565	Property damage only	2010	June	Saturday	21	Single vehicle	Hit object	-25.28717693	152.8311512	Beach Rd	Maryborough - Hervey Bay Rd	Locally controlled	Intersection	Roundabout	Give way sign	60 km/h	Clear	Darkness - Lighted	Straight	Level	Off Path-Straight: Mounts Traffic Island
0	Car/Station wagon	Go straight ahead	North	9474	Property damage only	2010	September	Friday	19	Single vehicle	Hit object	-26.6074717	153.0850135	Cessna St	Runway Dr	Locally controlled	Intersection	Roundabout	Give way sign	60 km/h	Clear	Darkness - Lighted	Straight	Level	Off Path-Straight: Left Off Cway Hit Obj
0	Car/Station wagon	Go straight ahead	East	9888	Property damage only	2010	December	Sunday	16	Single vehicle	Hit object	-27.63525392	152.8264311	Old Redbank Plains Rd	Redbank Plains Rd (02/13)	Locally controlled	Intersection	Roundabout	Give way sign	70 km/h	Raining	Daylight	Straight	Level	Off Path-Straight: Right Off Cway Hit Obj
0	Moped	Go straight ahead	North	9326	Medical treatment	2010	April	Sunday	14	Single vehicle	Hit object	-27.59416061	153.0049152	King Ave	Sherbrooke Rd	Locally controlled	Intersection	Roundabout	Give way sign	60 km/h	Clear	Daylight	Curved - view open	Level	Off Path-Curve: Off Cway Rt Bend Hit Obj
0	Motorcycle	Make right turn	East	9793	Hospitalisation	2010	June	Sunday	17	Single vehicle	Fall from vehicle	-27.64304066	153.1455334	Loganlea Rd	Winnetts Rd	Locally controlled	Intersection	Roundabout	Give way sign	60 km/h	Clear	Daylight	Straight	Level	Off Path-Straight: Right Turn
0	Utility/Panel van	Make right turn	North	9692	Property damage only	2010	May	Tuesday	21	Single vehicle	Hit object	-19.27196934	146.7504627	Banfield Rd	Baywaters Rd	Locally controlled	Intersection	Roundabout	Give way sign	0 - 50 km/h	Clear	Darkness - Lighted	Straight	Level	Off Path-Straight: Left Off Cway Hit Obj
0	Utility/Panel van	Go straight ahead	East	9096	Property damage only	2010	January	Wednesday	20	Single vehicle	Hit object	-19.59946138	147.3609669	Ivory Rd	Sexton Hwy	Locally controlled	Intersection	Roundabout	Give way sign	80 - 90 km/h	Raining	Darkness - Lighted	Straight	Level	Off Path-Straight: Left Off Cway Hit Obj
1	Articulated truck	Make right turn	North	10928	Property damage only	2010	April	Tuesday	11	Single vehicle	Hit object	-27.55438725	151.9744533	Bridge St	Curzon St	Locally controlled	Intersection	Roundabout	Give way sign	0 - 50 km/h	Clear	Daylight	Straight	Level	Off Path-Straight: Left Off Cway Hit Obj
1	Articulated truck	Make left turn	West	9938	Hospitalisation	2010	February	Friday	10	Single vehicle	Hit object	-27.9164518	153.2810858	Lagoon Park Dr	Riverstone Csq	Locally controlled	Intersection	Roundabout	Give way sign	0 - 50 km/h	Raining	Daylight	Straight	Dip	Off Path-Straight: Left Turn
1	Bicycle	Go straight ahead	West	9601	Medical treatment	2010	October	Wednesday	17	Single vehicle	Fall from vehicle	-27.52043403	153.0946442	Grevillea St	Tristancia Way	Locally controlled	Intersection	Roundabout	Give way sign	0 - 50 km/h	Clear	Daylight	Straight	Grade	Off Path-Straight: Out Of Control On Cway
1	Bicycle	Make left turn	West	9229	Fatal	2010	March	Saturday	9	Single vehicle	Hit object	-27.19394363	153.1108659	Fifth Ave	Thureath Pde	Locally controlled	Intersection	Roundabout	Give way sign	0 - 50 km/h	Clear	Daylight	Straight	Grade	Off Path-Straight: Mounts Traffic Island
1	Car/Station wagon	Go straight ahead	North	8576	Hospitalisation	2010	August	Monday	4	Single vehicle	Hit object	-27.68834196	153.0839267	Julie St	Kilby St	Locally controlled	Intersection	Roundabout	Give way sign	0 - 50 km/h	Clear	Darkness - Lighted	Curved - view obscured	Level	Off Path-Curve: Off Cway Rt Bend Hit Obj
1	Car/Station wagon	Go straight ahead	North	9174	Property damage only	2010	February	Saturday	17	Single vehicle	Hit object	-26.7765261	153.0986328	Isvalde Blvd	Tall Trees Wy	Locally controlled	Intersection	Roundabout	No traffic control	0 - 50 km/h	Clear	Daylight	Curved - view open	Level	Off Path-Straight: Mounts Traffic Island
1	Car/Station wagon	Go straight ahead	North	9296	Hospitalisation	2010	February	Wednesday	11	Single vehicle	Hit object	-16.90510469	145.7613958	Lake St	St Marys Rd	Locally controlled	Intersection	Roundabout	Give way sign	0 - 50 km/h	Clear	Daylight	Straight	Level	Off Path-Straight: Out Of Control On Cway
1	Car/Station wagon	Go straight ahead	North	9314	Hospitalisation	2010	March	Saturday	9	Single vehicle	Hit object	-27.27363823	146.571677	Eighth St	Tenth Ave	Locally controlled	Intersection	Roundabout	Give way sign	0 - 50 km/h	Clear	Daylight	Straight	Level	Off Path-Straight: Mounts Traffic Island
1	Car/Station wagon	Go straight ahead	South	9558	Hospitalisation	2010	May	Sunday	14	Single vehicle	Hit object	-23.38436255	150.4955212	Canning St	Filzroy St	Locally controlled	Intersection	Roundabout	Give way sign	0 - 50 km/h	Clear	Daylight	Straight	Crest	Off Path-Straight: Mounts Traffic Island
1	Car/Station wagon	Go straight ahead	South	9624	Minor injury	2010	September	Friday	7	Single vehicle	Hit object	-27.65415327	152.917022	Springfield Pky	Woodcrest Wy	Locally controlled	Intersection	Roundabout	Give way sign	0 - 50 km/h	Clear	Daylight	Straight	Level	Off Path-Straight: Out Of Control On Cway
1	Car/Station wagon	Go straight ahead	South	9656	Property damage only	2010	November	Friday	12	Single vehicle	Hit object	-27.27190598	153.0062805	Castle Hill Dr	Kingshand Rd	Locally controlled	Intersection	Roundabout	Give way sign	0 - 50 km/h	Clear	Daylight	Curved - view open	Grade	Off Path-Curve: Off Cway Rt Bend Hit Obj
1	Car/Station wagon	Go straight ahead	North	9746	Property damage only	2010	June	Wednesday	14	Single vehicle	Hit object	-27.5916099	152.8330937	Ashburn Rd	River Rd	State controlled	Intersection	Roundabout	Give way sign	0 - 50 km/h	Clear	Daylight	Straight	Level	Off Path-Straight: Mounts Traffic Island
1	Car/Station wagon	Go straight ahead	West	9846	Property damage only	2010	September	Thursday	5	Single vehicle	Hit object	-27.66852823	152.9222641	Burlington Tce	Springfield Lakes Blvd	Locally controlled	Intersection	Roundabout	Give way sign	0 - 50 km/h	Clear	Darkness - Lighted	Curved - view open	Grade	Off Path-Curve: Mounts Traffic Island
1	Car/Station wagon	Go straight ahead	North	9521	Hospitalisation	2010	November	Thursday	17	Single vehicle	Hit object	-28.01312101	153.4308475	Penfold Rd	Old Burlington St	Locally controlled	Intersection	Roundabout	Give way sign	0 - 50 km/h	Clear	Daylight	Straight	Level	Off Path-Straight: Mounts Traffic Island
1	Car/Station wagon	Go straight ahead	East	9989	Property damage only	2010	May	Monday	15	Single vehicle	Hit object	-19.57263047	147.4081156	Parker St	Queen St	Locally controlled	Intersection	Roundabout	Give way sign	0 - 50 km/h	Clear	Daylight	Straight	Level	Off Path-Straight: Left Off Cway Hit Obj
1	Car/Station wagon	Go straight ahead	South	10393	Hospitalisation	2010	April	Friday	3	Single vehicle	Hit object	-27.17129919	151.2724504	Kookaburra St	Swallow St	Locally controlled	Intersection	Roundabout	Give way sign	0 - 50 km/h	Clear	Darkness - Not lighted	Straight	Level	Off Path-Straight: Mounts Traffic Island
1	Car/Station wagon	Go straight ahead	South	11187	Medical treatment	2010	November	Tuesday	22	Single vehicle	Hit object	-19.57440549	147.4066997	Edwards St	Queen St	State controlled	Intersection	Roundabout	Give way sign	0 - 50 km/h	Clear	Darkness - Lighted	Straight	Level	Off Path-Straight: Left Off Cway Hit Obj
1	Car/Station wagon	Go straight ahead	West	11197	Property damage only	2010	November	Monday	2	Single vehicle	Hit object	-27.63684293	153.10213	North Rd	Station Rd	Locally controlled	Intersection	Roundabout	Give way sign	0 - 50 km/h	Clear	Darkness - Lighted	Straight	Level	Off Path-Straight: Mounts Traffic Island
1	Car/Station wagon	Go straight ahead	East	7915	Medical treatment	2010	August	Friday	17	Single vehicle	Hit object	-27.88985906	153.3051952	Regatta Ave	Tamborine - Oxenford Rd	State controlled	Intersection	Roundabout	Give way sign	60 km/h	Clear	Darkness - Lighted	Straight	Grade	Off Path-Straight: Out Of Control On Cway
1	Car/Station wagon	Go straight ahead	East	8023	Property damage only	2010	July	Sunday	1	Single vehicle	Hit object	-27.58715993	153.0292393	Prislandale Rd	Rochdale Rd	Locally controlled	Intersection	Roundabout	Give way sign	60 km/h	Clear	Darkness - Lighted	Curved - view open	Level	Off Path-Straight: Left Off Cway Hit Obj
1	Car/Station wagon	Go straight ahead	East	8076	Property damage only	2010	July	Friday	0	Single vehicle	Hit object	-27.68266581	153.118162	Browns Plains Rd	Chambers Flat Rd	Locally controlled	Intersection	Roundabout	Give way sign	60 km/h	Clear	Darkness - Lighted	Curved - view open	Level	Off Path-Curve: Mounts Traffic Island
1	Car/Station wagon	Go straight ahead	North	8649	Hospitalisation	2010	June	Monday	17	Single vehicle	Hit object	-27.4652179	152.9881963	Hebe St	Western Arterial Rd (1/04)	State controlled	Intersection	Roundabout	Give way sign	60 km/h	Clear	Darkness - Lighted	Straight	Level	Off Path-Straight: Mounts Traffic Island
1	Car/Station wagon	Go straight ahead	North	9188	Minor injury	2010	July	Monday	16	Single vehicle	Hit object	-26.6702809	153.0695063	Highfield St	North Buderim Blvd	Locally controlled	Intersection	Roundabout	Give way sign	60 km/h	Clear	Daylight	Straight	Level	Off Path-Straight: Mounts Traffic Island
1	Car/Station wagon	Go straight ahead	East	9201	Property damage only	2010	January	Sunday	1	Single vehicle	Hit object	-27.67225654	152.9226585	Liberty Cres	Summit Dr	Locally controlled	Intersection	Roundabout	No traffic control	60 km/h	Clear	Darkness - Lighted	Straight	Level	Off Path-Straight: Left Off Cway Hit Obj
1	Car/Station wagon	Go straight ahead	South	9211	Minor injury	2010	April	Saturday	14	Single vehicle	Hit object	-27.48645613	153.2385498	Birkdale Rd (1/95)	Main Rd	State controlled	Intersection	Roundabout	Give way sign	60 km/h	Clear	Daylight	Straight	Level	Off Path-Straight: Mounts Traffic Island
1	Car/Station wagon	Go straight ahead	West	9278	Property damage only	2010	May	Sunday	1	Single vehicle	Hit object	-27.28926241	152.9399496	Ira Buckley Rd	Samsomvale Rd	Locally controlled	Intersection	Roundabout	Give way sign	60 km/h	Clear	Darkness - Lighted	Straight	Level	Off Path-Straight: Mounts Traffic Island
1	Car/Station wagon	Go straight ahead	West	9307	Property damage only	2010	January	Wednesday	2	Single vehicle	Hit object	-27.50736216	153.0442594	Hollowell Rd	Jackman Rd	Locally controlled	Intersection	Roundabout	Give way sign	60 km/h	Clear	Darkness - Lighted	Straight	Level	Off Path-Straight: Mounts Traffic Island
1	Car/Station wagon	Go straight ahead	West	9349	Medical treatment	2010	May	Wednesday	22	Single vehicle	Hit object	-19.2698073	146.7848752	Marlinee Ave	Sabina St	Locally controlled	Intersection	Roundabout	Give way sign	60 km/h	Clear	Darkness - Lighted	Straight	Level	Off Path-Straight: Left Off Cway Hit Obj
1	Car/Station wagon	Go straight ahead	North	9484	Property damage only	2010	November	Tuesday	20	Single vehicle	Hit object	-27.87470013	153.2961301	Brygon Creek Dr	Sauvignon Ct	Locally controlled	Intersection	Roundabout	Give way sign	60 km/h	Clear	Darkness - Lighted	Straight	Dip	Off Path-Curve: Mounts Traffic Island
1	Car/Station wagon	Go straight ahead	West	9539	Property damage only	2010	April	Saturday	15	Single vehicle	Hit object	-27.47913262	153.021778	Ernest St	Grey St	Locally controlled	Intersection	Roundabout	Give way sign	60 km/h	Clear	Daylight	Straight	Level	Off Path-Straight: Left Off Cway Hit Obj
1	Car/Station wagon	Go straight ahead	South	9627	Property damage only	2010	May	Friday	0	Single vehicle	Hit object	-27.41546849	153.046992	Dickson St	Rawson St	Locally controlled	Intersection	Roundabout	Give way sign	60 km/h	Clear	Darkness - Lighted	Straight	Level	Off Path-Straight: Mounts Traffic Island
1	Car/Station wagon	Go straight ahead	South	9658	Property damage only	2010	July	Sunday	2	Single vehicle	Hit object	-27.6278554	153.0291881	Algerster Rd	Nottingham Rd	Locally controlled	Intersection	Roundabout	Give way sign	60 km/h	Clear	Darkness - Lighted	Curved - view open	Grade	Off Path-Curve: Off Cway Lt Bend Hit Obj
1	Car/Station wagon	Go straight ahead	West	9813	Property damage only	2010	April	Friday	22	Single vehicle	Hit object	-25.1928336	153.029333	Lynns St	Percy St	State controlled	Intersection	Roundabout	Give way sign	60 km/h	Clear	Darkness - Lighted	Straight	Level	Off Path-Straight: Mounts Traffic Island
1	Car/Station wagon	Go straight ahead	East	9834	Fatal	2010	November	Tuesday	17	Single vehicle	Hit object	-26.63202263	152.9534892	Perwillowen Rd	Windor Rd	Locally controlled	Intersection	Roundabout	Give way sign	60 km/h	Clear	Dawn/Dusk	Straight	Level	Off Path-Straight: Mounts Traffic Island
1	Car/Station wagon	Go straight ahead	South	9890	Property damage only	2010	May	Monday	22	Single vehicle	Hit object	-27.57816584	152.9742055	Freemans Rd	Rosemary St	Locally controlled	Intersection	Roundabout	Give way sign	60 km/h	Clear	Darkness - Lighted	Straight	Grade	Off Path-Straight: Mounts Traffic Island
1	Car/Station wagon	Go straight ahead	South	9958	Property damage only	2010	September	Thursday	19	Single vehicle	Hit object	-27.20028185	153.0356115	Cross St	Webster Rd	Locally controlled	Intersection	Roundabout	Give way sign	60 km/h	Clear	Darkness - Lighted	Straight	Level	Off Path-Straight: Mounts Traffic Island
1	Car/Station wagon	Go straight ahead	East	9960	Medical treatment	2010	September	Wednesday	6	Single vehicle	Hit object	-27.24728198	153.0098903	Cecily St	Redcliffe Rd	State controlled	Intersection	Roundabout	Give way sign	60 km/h	Clear	Daylight	Straight	Level	Off Path-Straight: Left Off Cway Hit Obj
1	Car/Station wagon	Go straight ahead	North	9994	Property damage only	2010	June	Friday	1	Single vehicle	Hit object	-27.85912718	153.296178	Marsh St	Old Coach Rd	Locally controlled	Intersection								

1	Motorcycle	Go straight ahead	East	9780 Medical treatment	2010 May	Sunday	0	Single vehicle	Fall from vehicle	-19.31220923	146.7969721	Glendale Dr	William Angliss Dr	Locally controlled	Intersection	Roundabout	Give way sign	60 km/h	Clear	Darkness - Lighted	Curved - view open	Level	Off Path-Curve: Out Of Control On Cway
1	Motorcycle	Go straight ahead	North	9818 Minor injury	2010 May	Sunday	10	Single vehicle	Fall from vehicle	-26.66607982	152.97778276	Nambour Connection Rd	Woombie - Montville Rd	State controlled	Intersection	Roundabout	Give way sign	60 km/h	Clear	Daylight	Straight	Crest	Off Path-Straight-Out Of Control On Cway
1	Motorcycle	Go straight ahead	South	9915 Minor injury	2010 September	Friday	15	Single vehicle	Fall from vehicle	-16.93235963	145.7377118	Draper St	Port Connection Rd (1/04)	State controlled	Intersection	Roundabout	Give way sign	60 km/h	Clear	Daylight	Straight	Level	Off Path-Straight: Out Of Control On Cway
1	Motorcycle	Go straight ahead	East	9944 Hospitalisation	2010 November	Sunday	20	Single vehicle	Hit object	-28.07264328	153.3769778	Bayberry La	Robina Town Centre Dr	Locally controlled	Intersection	Roundabout	No traffic control	60 km/h	Clear	Darkness - Lighted	Straight	Level	Off Path-Straight: Mounts Traffic Island
1	Motorcycle	Go straight ahead	West	10043 Minor injury	2010 October	Sunday	17	Single vehicle	Fall from vehicle	-29.87597328	146.7741904	Charles St	Fulham Rd	Locally controlled	Intersection	Roundabout	Give way sign	60 km/h	Clear	Dawn/Dusk	Straight	Level	Off Path-Straight-Out Of Control On Cway
1	Motorcycle	Go straight ahead	South	10197 Hospitalisation	2010 September	Saturday	14	Single vehicle	Hit object	-27.31432461	153.0354778	Ellison Rd	Murphy Rd	Locally controlled	Intersection	Roundabout	Give way sign	60 km/h	Clear	Daylight	Straight	Level	Off Path-Straight: Left Off Cway Hit Obj
1	Motorcycle	Go straight ahead	East	11095 Hospitalisation	2010 December	Monday	14	Single vehicle	Fall from vehicle	-27.60394418	152.9322644	Boundary Rd	Formation St	Locally controlled	Intersection	Roundabout	Give way sign	60 km/h	Clear	Daylight	Straight	Level	Veh'S Adjacent Approach: Thru-Thru
1	Motorcycle	Go straight ahead	North	11194 Hospitalisation	2010 November	Saturday	18	Single vehicle	Fall from vehicle	-27.99911731	153.3785542	Ashmore Rd	Labrador - Carrara Rd	State controlled	Intersection	Roundabout	Give way sign	60 km/h	Clear	Dawn/Dusk	Straight	Level	Off Path-Straight-Out Of Control On Cway
1	Motorcycle	Go straight ahead	East	9956 Medical treatment	2010 November	Monday	10	Single vehicle	Fall from vehicle	-27.87821882	153.3380015	Hope Island Rd (1/04)		State controlled	Intersection	Roundabout	Give way sign	70 km/h	Clear	Daylight	Straight	Level	Off Path-Straight-Out Of Control On Cway
1	Motorcycle	Go straight ahead	North	10191 Medical treatment	2010 April	Thursday	10	Single vehicle	Fall from vehicle	-19.3211282	146.8163289	Edison St	Townsville Connection Rd (09)	State controlled	Intersection	Roundabout	Give way sign	70 km/h	Clear	Daylight	Straight	Level	Off Path-Straight-Out Of Control On Cway
1	Motorcycle	Make left turn	West	9135 Hospitalisation	2010 February	Wednesday	19	Single vehicle	Fall from vehicle	-27.66819026	152.9167681	South West Art Rd On Ramp (S) (1/04)	Springfield Lakes Blvd	State controlled	Intersection	Roundabout	No traffic control	60 km/h	Clear	Darkness - Lighted	Straight	Level	Off Path-Straight: Left Turn
1	Motorcycle	Go straight ahead	South	10168 Hospitalisation	2010 November	Friday	9	Single vehicle	Fall from vehicle	-27.37587899	153.227639	Old Pacific Hwy	Stapylton - Jacobs Well Rd	State controlled	Intersection	Roundabout	Give way sign	60 km/h	Clear	Daylight	Curved - view open	Grade	Off Path-Straight: Right Turn
1	Motorcycle	Go straight ahead	South	8998 Hospitalisation	2010 January	Friday	10	Single vehicle	Fall from vehicle	-25.28801283	152.8381932	Main St	Maryborough - Hervey Bay Rd	State controlled	Intersection	Roundabout	No traffic control	60 km/h	Raining	Daylight	Straight	Level	Off Path-Straight-Out Of Control On Cway
1	Motorcycle	Go straight ahead	South	9940 Hospitalisation	2010 October	Thursday	14	Single vehicle	Fall from vehicle	-28.04395322	153.3886364	Boowaggan Rd	Robina Parkway	Locally controlled	Intersection	Roundabout	Give way sign	60 km/h	Raining	Daylight	Straight	Level	Off Path-Straight-Out Of Control On Cway
1	Motorcycle	Go straight ahead	West	10040 Minor injury	2010 December	Wednesday	5	Single vehicle	Fall from vehicle	-21.15780816	149.1708899	Bridge Rd	Paradise St	Locally controlled	Intersection	Roundabout	Give way sign	60 km/h	Clear	Dawn/Dusk	Straight	Level	Off Path-Straight-Out Of Control On Cway
1	Motorcycle	Go straight ahead	West	10284 Hospitalisation	2010 August	Thursday	23	Single vehicle	Hit object	-28.04903945	153.356475	Gold Coast - Springbrook Rd	Pacific Hwy On Ramp (Southbound)	State controlled	Intersection	Roundabout	Give way sign	70 km/h	Raining	Darkness - Not lighted	Curved - view obscured	Dip	Off Path-Curve: Mounts Traffic Island
1	Motorcycle	Make left turn	East	10076 Medical treatment	2010 December	Wednesday	11	Single vehicle	Fall from vehicle	-27.37348581	152.8864951	Samford - Mt Glorious Rd	Strathpine - Samford Rd	State controlled	Intersection	Roundabout	Give way sign	60 km/h	Raining	Daylight	Straight	Grade	Off Path-Straight: Left Turn
1	Utility/Panel van	Go straight ahead	North	10035 Property damage only	2010 November	Wednesday	10	Single vehicle	Hit parked vehicle	-26.57101258	153.095261	Boardwalk Blvd	Wave Cr	Locally controlled	Intersection	Roundabout	Give way sign	0 - 50 km/h	Clear	Daylight	Curved - view obscured	Level	Off Path-Curve: Off Cway Lt Bend Hit Obj
1	Utility/Panel van	Go straight ahead	North	10125 Property damage only	2010 July	Thursday	21	Single vehicle	Hit object	-27.51191901	153.2564448	Sturgeon St	Wellington St	Locally controlled	Intersection	Roundabout	Give way sign	0 - 50 km/h	Clear	Darkness - Lighted	Straight	Level	Off Path-Straight: Left Off Cway Hit Obj
1	Utility/Panel van	Go straight ahead	South	10404 Property damage only	2010 June	Sunday	7	Single vehicle	Hit object	-27.94411022	153.3995274	Government Rd	Whiting St	Locally controlled	Intersection	Roundabout	Give way sign	0 - 50 km/h	Clear	Daylight	Straight	Level	Off Path-Straight: Left Off Cway Hit Obj
1	Utility/Panel van	Go straight ahead	South	8028 Medical treatment	2010 April	Monday	3	Single vehicle	Hit object	-27.69734549	153.0127179	Crest Rd	Middle Rd	Locally controlled	Intersection	Roundabout	No traffic control	60 km/h	Clear	Darkness - Lighted	Curved - view open	Level	Off Path-Curve: Out Of Control On Cway
1	Utility/Panel van	Go straight ahead	North	8720 Property damage only	2010 December	Wednesday	22	Single vehicle	Hit object	-27.37402161	153.0354198	Ellison Rd	Murphy Rd	Locally controlled	Intersection	Roundabout	Give way sign	60 km/h	Clear	Darkness - Lighted	Curved - view open	Level	Off Path-Curve: Mounts Traffic Island
1	Utility/Panel van	Go straight ahead	North	9074 Hospitalisation	2010 April	Sunday	1	Single vehicle	Hit object	-27.65365712	153.0571318	Buckley Dr	Macquarie Way	Locally controlled	Intersection	Roundabout	No traffic control	60 km/h	Clear	Darkness - Lighted	Straight	Level	Off Path-Straight: Left Off Cway Hit Obj
1	Utility/Panel van	Go straight ahead	North	9273 Medical treatment	2010 January	Friday	1	Single vehicle	Hit object	-27.88899913	152.971294	Calmarvale Cr	Helensvale Rd	Locally controlled	Intersection	Roundabout	Give way sign	60 km/h	Clear	Darkness - Lighted	Straight	Level	Off Path-Straight: Mounts Traffic Island
1	Utility/Panel van	Go straight ahead	North	9288 Medical treatment	2010 June	Friday	7	Single vehicle	Hit object	-19.29969926	146.759849	Burda St	Garbutt - Upper Ross Rd	State controlled	Intersection	Roundabout	Give way sign	60 km/h	Clear	Daylight	Straight	Level	Veh'S Adjacent Approach: Thru-Right
1	Utility/Panel van	Go straight ahead	North	9824 Property damage only	2010 June	Tuesday	14	Single vehicle	Hit object	-26.62780275	153.0801088	Ocean Dr	Twin Waters Dr	Locally controlled	Intersection	Roundabout	Give way sign	60 km/h	Clear	Daylight	Curved - view open	Level	Off Path-Curve: Out Of Control On Cway
1	Utility/Panel van	Go straight ahead	East	10263 Property damage only	2010 July	Tuesday	15	Single vehicle	Hit object	-27.9443849	153.3117346	Brockman Wy	Crosby Ave	Locally controlled	Intersection	Roundabout	Give way sign	60 km/h	Clear	Daylight	Curved - view open	Grade	Off Path-Curve: Off Cway Rt Bend Hit Obj
1	Utility/Panel van	Go straight ahead	South	10526 Hospitalisation	2010 November	Thursday	19	Single vehicle	Hit object	-23.87187705	151.2719071	French St	Gladstone - Benaraby Rd	State controlled	Intersection	Roundabout	Give way sign	60 km/h	Clear	Darkness - Lighted	Straight	Level	Off Path-Straight: Mounts Traffic Island
1	Utility/Panel van	Go straight ahead	South	9395 Property damage only	2010 May	Thursday	0	Single vehicle	Hit object	-27.67203002	153.0747957	Browns Plains Rd	Wayne Goss Dr	Locally controlled	Intersection	Roundabout	Give way sign	70 km/h	Clear	Darkness - Lighted	Straight	Level	Off Path-Straight: Left Off Cway Hit Obj
1	Utility/Panel van	Make left turn	North	9559 Medical treatment	2010 November	Monday	15	Single vehicle	Hit object	-23.87216506	151.2717641	French St	Gladstone - Benaraby Rd	State controlled	Intersection	Roundabout	Give way sign	60 km/h	Clear	Daylight	Curved - view open	Level	Off Path-Curve: Off Cway Rt Bend Hit Obj
1	Utility/Panel van	Make left turn	South	9697 Property damage only	2010 September	Thursday	6	Single vehicle	Hit object	-28.0947406	153.4167309	Rio Vista Blvd	Rudd St	Locally controlled	Intersection	Roundabout	Give way sign	60 km/h	Clear	Dawn/Dusk	Straight	Level	Off Path-Straight: Mounts Traffic Island
1	Utility/Panel van	Make right turn	East	9713 Property damage only	2010 March	Monday	15	Single vehicle	Hit object	-27.52638163	153.1586093	Mt Gravatt - Capalaba Rd	Tilley Rd	Locally controlled	Intersection	Roundabout	Give way sign	70 km/h	Clear	Daylight	Straight	Level	Veh'S Adjacent Approach: Right-Right
1	Utility/Panel van	Go straight ahead	North	9555 Property damage only	2010 October	Saturday	3	Single vehicle	Hit object	-23.51361561	148.1657302	Borilla St	Campbell St	Locally controlled	Intersection	Roundabout	Give way sign	0 - 50 km/h	Clear	Darkness - Lighted	Straight	Level	Off Path-Straight: Mounts Traffic Island
1	Utility/Panel van	Go straight ahead	South	10031 Minor injury	2010 March	Wednesday	19	Single vehicle	Hit object	-16.94210661	145.758148	Hartley St	Lyons St	Locally controlled	Intersection	Roundabout	Give way sign	0 - 50 km/h	Raining	Darkness - Lighted	Straight	Level	Off Path-Straight: Mounts Traffic Island
1	Utility/Panel van	Go straight ahead	North	8277 Property damage only	2010 April	Sunday	5	Single vehicle	Hit object	-27.91216723	153.402881	Bayview St	Lae Dr	Locally controlled	Intersection	Roundabout	Give way sign	60 km/h	Raining	Darkness - Lighted	Straight	Level	Off Path-Straight: Left Off Cway Hit Obj
1	Utility/Panel van	Go straight ahead	South	8513 Property damage only	2010 July	Sunday	0	Single vehicle	Hit object	-27.24583011	152.9922455	Ann St	Old Gympie Rd	Locally controlled	Intersection	Roundabout	Give way sign	60 km/h	Raining	Darkness - Lighted	Straight	Level	Off Path-Straight: Left Off Cway Hit Obj
1	Utility/Panel van	Go straight ahead	East	9273 Medical treatment	2010 January	Friday	1	Single vehicle	Hit object	-27.13907246	152.971294	Calmarvale Cr	Burpengary - Caboolture Rd	Locally controlled	Intersection	Roundabout	Give way sign	60 km/h	Raining	Darkness - Lighted	Straight	Level	Off Path-Straight: Off Cway Rt Bend Hit Obj
1	Utility/Panel van	Go straight ahead	South	10105 Minor injury	2010 March	Monday	12	Single vehicle	Hit object	-28.03186623	153.3863883	Nerang - Broadbeach Rd	Nerang - Broadbeach Rd	State controlled	Intersection	Roundabout	Give way sign	60 km/h	Clear	Daylight	Curved - view open	Crest	Off Path-Curve: Off Cway Lt Bend Hit Obj
1	Utility/Panel van	Go straight ahead	South	8901 Property damage only	2010 January	Friday	6	Single vehicle	Hit object	-27.18399186	152.927222	Oakey Flat Rd	Raynbird Rd	Locally controlled	Intersection	Roundabout	Give way sign	80 - 90 km/h	Raining	Daylight	Straight	Level	Off Path-Straight: Left Off Cway Hit Obj
1	Utility/Panel van	Make left turn	South	9762 Property damage only	2010 December	Sunday	9	Single vehicle	Hit object	-27.26997918	152.9783759	Brisbane - Woodford Rd	Redcliffe Rd	State controlled	Intersection	Roundabout	Give way sign	60 km/h	Raining	Daylight	Curved - view open	Grade	Off Path-Curve: Off Cway Lt Bend Hit Obj
1	Utility/Panel van	Make right turn	South	9078 Medical treatment	2010 August	Friday	11	Single vehicle	Hit object	-26.8302147	153.1179979	Anning Ave	Pelican Waters Blvd	Locally controlled	Intersection	Roundabout	Give way sign	60 km/h	Raining	Daylight	Straight	Level	Off Path-Straight: Mounts Traffic Island
1	Utility/Panel van	Make right turn	West	10355 Medical treatment	2010 August	Monday	19	Single vehicle	Fall from vehicle	-27.524155	153.2559658	Capalaba - Cleveland Rd (1/04)	Wellington St	State controlled	Intersection	Roundabout	Give way sign	60 km/h	Raining	Darkness - Lighted	Straight	Level	Veh'S Adjacent Approach: Thru-Right
2	Articulated truck	Make right turn	West	7486 Minor injury	2010 June	Thursday	10	Single vehicle	Hit object	-27.68944172	153.1375575	Pacific Hwy (1/04)	Paradise Rd (Aka Springwood Conn. Rd)	State controlled	Intersection	Roundabout	Give way sign	60 km/h	Clear	Daylight	Straight	Level	Off Path-Straight: Right Turn
2	Car/Station wagon	Go straight ahead	North	8997 Property damage only	2010 August	Saturday	2	Single vehicle	Hit object	-27.4024664	153.0127179	Crest Rd	Burpengary - Caboolture Rd	Locally controlled	Intersection	Roundabout	Give way sign	0 - 50 km/h	Clear	Darkness - Lighted	Curved - view open	Grade	Off Path-Curve: Off Cway Rt Bend Hit Obj
2	Car/Station wagon	Go straight ahead	North	10132 Property damage only	2010 April	Saturday	3	Single vehicle	Hit object	-27.19048325	146.7463828	Riverbend Dr	Riverside Blvd	Locally controlled	Intersection	Roundabout	Give way sign	0 - 50 km/h	Clear	Darkness - Lighted	Curved - view obscured	Level	Off Path-Curve: Off Cway Rt Bend Hit Obj
2	Car/Station wagon	Go straight ahead	North	10362 Hospitalisation	2010 August	Tuesday	15	Single vehicle	Fall from vehicle	-26.40089009	153.0687438	Reef St	Waybys Rd	Locally controlled	Intersection	Roundabout	Give way sign	0 - 50 km/h	Clear	Daylight	Curved - view obscured	Level	Veh'S Adjacent Approach: Thru-Thru
2	Car/Station wagon	Go straight ahead	North	8609 Property damage only	2010 August	Wednesday	22	Single vehicle	Hit object	-26.534944	153.072822	Sunshine Hwy	Yandina - Coolool Rd	State controlled	Intersection	Roundabout	Give way sign	60 km/h	Clear	Darkness - Lighted	Curved - view open	Level	Off Path-Curve: Off Cway Lt Bend Hit Obj
2	Car/Station wagon	Go straight ahead	East	8884 Hospitalisation	2010 October	Monday	7	Single vehicle	Hit object	-27.17644058	152.9501646	Mckenzie Ave	New Settlement Rd	Locally controlled	Intersection	Roundabout	Give way sign	60 km/h	Clear	Daylight	Straight	Grade	Off Path-Straight: Left Off Cway Hit Obj
2	Car/Station wagon	Go straight ahead	East	9145 Property damage only	2010 January	Monday	17	Single vehicle	Hit object	-26.5585504	152.9647189	Bruce Hwy On Ramp (N/Bound)	Yandina - Coolool Rd	State controlled	Intersection	Roundabout	No traffic control	60 km/h	Clear	Daylight	Curved - view open	Level	Off Path-Curve: Mounts Traffic Island
2	Car/Station wagon	Go straight ahead	North	9162 Hospitalisation	2010 January	Thursday	0	Single vehicle	Hit object	-27.9162246	153.0747957	Browns Plains Rd	Rudd St	Locally controlled	Intersection	Roundabout	Give way sign	60 km/h	Clear	Darkness - Lighted	Straight	Level	Off Path-Straight: Mounts Traffic Island
2	Car/Station wagon	Go straight ahead	East	9223 Medical treatment	2010 January	Saturday	17	Single vehicle	Hit object	-27.9862643	153.382027	Cottlev St	Labrador - Carrara Rd	State controlled	Intersection	Roundabout	No traffic control	60 km/h	Clear	Darkness - Lighted	Straight	Level	Off Path-Straight: Mounts Traffic Island
2	Car/Station wagon	Go straight ahead	East	9316 Minor injury	2010 January	Saturday	13	Single vehicle	Fall from vehicle	-28.11284799	153.4584108	Mallawa Dr	Nineteenth Ave	Locally controlled	Intersection	Roundabout	Give way sign	60 km/h	Clear	Daylight	Straight	Level	Veh'S Adjacent Approach: Thru-Thru
2	Car/Station wagon	Go straight ahead	East	9497 Medical treatment	2010 October	Sunday	19	Single vehicle	Hit object	-23.1407639	150.7391765	Rockhampton - Yeppoon Rd (Part 1)	Tamby Rd	State controlled	Intersection	Roundabout	Give way sign	60 km/h	Clear	Darkness - Lighted	Straight	Level	Off Path-Straight: Mounts Traffic Island
2	Car/Station wagon	Go straight ahead	East	9537 Property damage only	2010 October	Thursday	0	Single vehicle	Hit object	-28.08587713	153.3962567	Christine Ave	Konda Wy	Locally controlled	Intersection	Roundabout	Give way sign	60 km/h	Clear	Darkness - Lighted	Straight	Level	Off Path-Curve: Mounts Traffic Island
2	Car/Station wagon	Go straight ahead	North	9549 Property damage only	2010 October	Wednesday	18	Single vehicle	Hit object	-27.10918972	152.948603	Burpengary - Caboolture Rd	Station Rd	State controlled	Intersection	Roundabout	No traffic control	60 km/h	Clear	Darkness - Lighted	Curved - view open	Grade	Off Path-Curve: Off Cway Rt Bend Hit Obj
2	Car/Station wagon	Go straight ahead	West	9669 Property damage only	2010 September	Thursday	7	Single vehicle	Hit object	-26.40953209	153.0694289	Enrie Ck Rd	Reef St	Locally controlled	Intersection	Roundabout	Give way sign	60 km/h	Clear	Daylight	Curved - view open	Level	Off Path-Curve: Mounts Traffic Island
2	Car/Station wagon	Go straight ahead	South	9285 Hospitalisation	2010 August	Monday	22	Single vehicle	Hit object	-23.94281528	151.339455	Centenary Dr	Handley Dr	Locally controlled	Intersection	Roundabout	No traffic control	60 km/h	Clear	Darkness - Lighted	Curved - view open	Level	Off Path-Straight: Mounts Traffic Island
2	Car/Station wagon	Go straight ahead	West	9836 Medical treatment	2010 March	Monday	14	Single vehicle	Hit object	-16.84910096	145.7023252	Captain Cook Hwy	Yorkneys Knob Rd	State controlled	Intersection	Roundabout	Give way sign	60 km/h	Clear	Daylight	Curved - view open	Level	Off Path-Curve: Mount

2 Utility/Panel van	Make right turn	South	7848 Property damage only	2010 May	Saturday	22 Single vehicle	Hit object	-26.47416407	152.9557491	Caplick Wy	Eumundi - Noosa Rd	State controlled	Intersection - Roundabout	Give way sign	60 km/h	Clear	Darkness - Lighted	Curved - view open	Level	Off Path-Curve: Off Cway Rt Bend Hit Obj
2 Utility/Panel van	Go straight ahead	South	9334 Minor injury	2010 September	Tuesday	13 Single vehicle	Hit object	-27.72549535	153.0316469	Mt Lindesay Hwy Off Ramp (S/Bound)	Stoney Camp Rd	State controlled	Intersection - Roundabout	Give way sign	0 - 50 km/h	Raining	Daylight	Curved - view open	Level	Off Path-Curve: Off Cway Rt Bend Hit Obj
2 Utility/Panel van	Go straight ahead	East	8751 Medical treatment	2010 May	Monday	6 Single vehicle	Hit object	-26.78088555	153.0790941	Caloundra - Mooloolaba Rd	Caloundra Rd	State controlled	Intersection - Roundabout	Give way sign	60 km/h	Clear	Daylight	Straight	Level	Off Path-Straight: Left Off Cway Hit Obj
2 Utility/Panel van	Go straight ahead	North	9046 Property damage only	2010 January	Tuesday	8 Single vehicle	Hit object	-21.09979333	149.1600077	Holts Rd	Mackay - Bucasia Rd	State controlled	Intersection - Roundabout	No traffic control	60 km/h	Raining	Daylight	Straight	Level	Off Path-Straight: Left Off Cway Hit Obj
2 Utility/Panel van	Go straight ahead	South	9191 Property damage only	2010 January	Monday	9 Single vehicle	Hit object	-21.10000462	149.1601658	Holts Rd	Mackay - Bucasia Rd	State controlled	Intersection - Roundabout	No traffic control	60 km/h	Raining	Daylight	Straight	Level	Off Path-Straight: Left Off Cway Hit Obj
2 Utility/Panel van	Go straight ahead	South	9342 Property damage only	2010 February	Saturday	12 Single vehicle	Hit object	-27.23354711	152.9930964	Butterfly Dr	Old Gympie Rd	Locally controlled	Intersection - Roundabout	Give way sign	60 km/h	Raining	Daylight	Straight	Grade	Off Path-Straight: Left Off Cway Hit Obj
2 Utility/Panel van	Go straight ahead	South	10387 Property damage only	2010 May	Saturday	9 Single vehicle	Hit object	-16.79215019	145.67878	Captain Cook Hwy	Poolwood Rd	State controlled	Intersection - Roundabout	Give way sign	60 km/h	Clear	Daylight	Curved - view open	Level	Off Path-Curve: Mounts Traffic Island
2 Utility/Panel van	Go straight ahead	South	10644 Property damage only	2010 April	Sunday	2 Single vehicle	Hit object	-16.50635335	145.462951	Lakeland Ave	Port Douglas Rd	State controlled	Intersection - Roundabout	Give way sign	60 km/h	Raining	Darkness - Lighted	Curved - view open	Level	Off Path-Curve: Off Cway Rt Bend Hit Obj
2 Utility/Panel van	Make left turn	South	9898 Medical treatment	2010 October	Tuesday	1 Single vehicle	Hit object	-26.62044392	153.0715298	Maroochydhore - Noosa Rd (1/04)	Sunshine Mwy Service Rd (S)	State controlled	Intersection - Roundabout	Give way sign	60 km/h	Raining	Darkness - Lighted	Curved - view open	Level	Off Path-Curve: Off Cway Lt Bend Hit Obj
2 Utility/Panel van	Make right turn	South	9035 Property damage only	2010 April	Friday	7 Single vehicle	Hit object	-26.80043261	153.1161267	Caloundra Rd	Nicklin Wy	State controlled	Intersection - Roundabout	Give way sign	0 - 50 km/h	Clear	Daylight	Straight	Level	Off Path-Straight: Mounts Traffic Island
2 Utility/Panel van	Make right turn	North	7897 Property damage only	2010 September	Wednesday	9 Single vehicle	Hit object	-23.87665318	151.2233439	Dawson Hwy	Harvey Rd	Locally controlled	Intersection - Roundabout	Give way sign	60 km/h	Clear	Daylight	Straight	Grade	Off Path-Straight: Left Off Cway Hit Obj
2 Utility/Panel van	Make right turn	North	9769 Property damage only	2010 April	Sunday	20 Single vehicle	Hit object	-16.99039077	145.6981004	Redlynch Connector Rd	Redlynch Intake Rd	Locally controlled	Intersection - Roundabout	No traffic control	60 km/h	Raining	Darkness - Lighted	Curved - view obscured	Level	Off Path-Curve: Off Cway Lt Bend Hit Obj

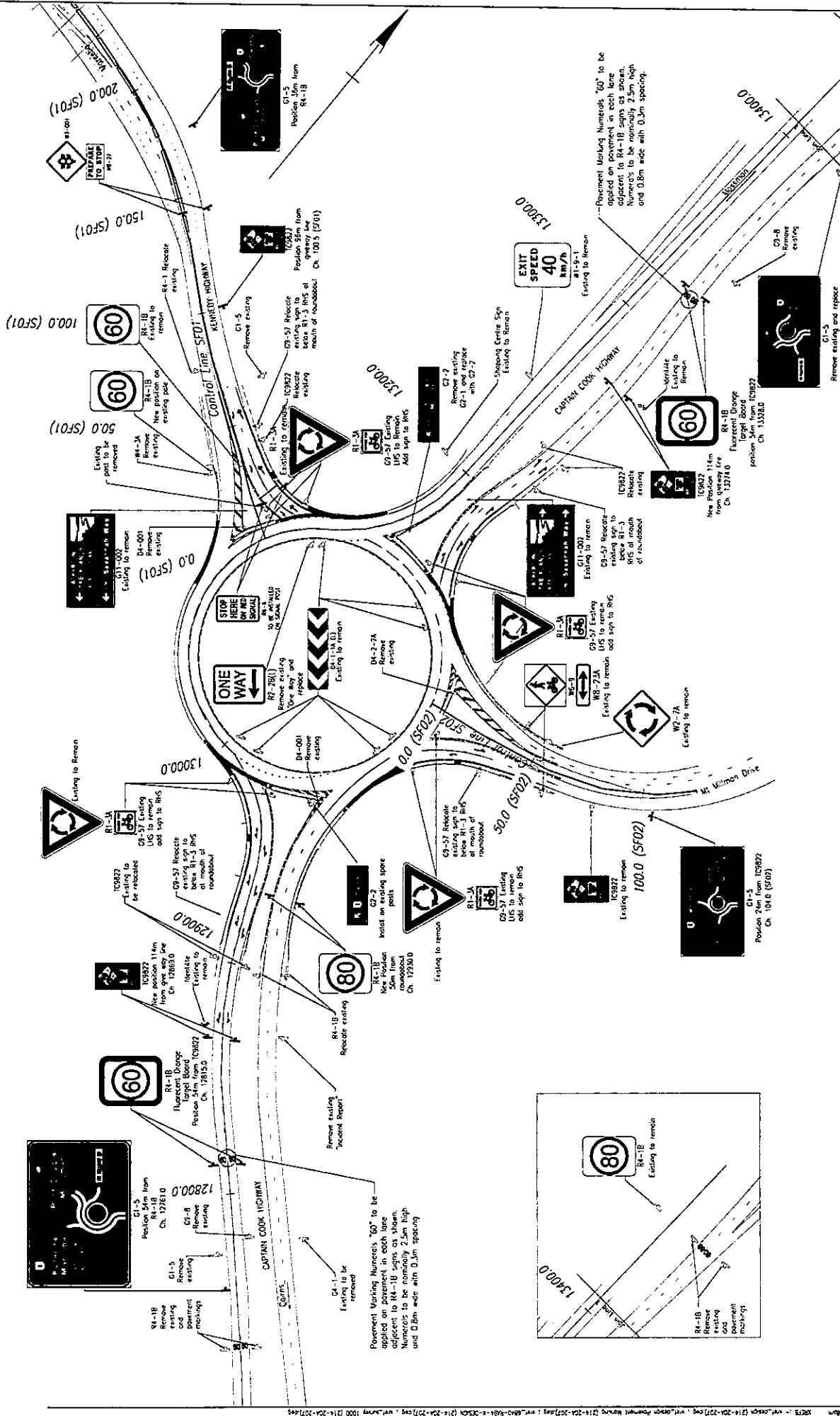
13. Appendix E: Overturned Crash Data

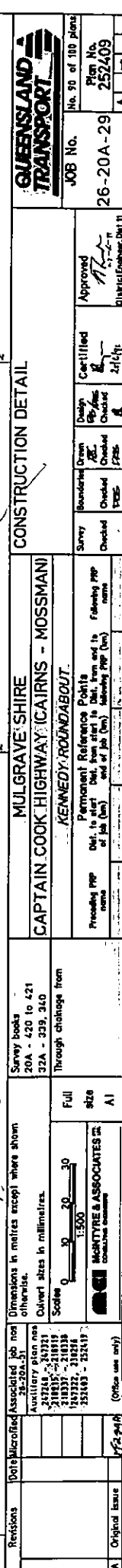
Xfile	Vehicle type	Intended Movement	Direction Headed	Ref Number	Severity	Year	Month	Day	Hour	Crash Nature	Crash Type	Latitude	Longitude	Street	Intersecting Street	Road Authority	Road Feature	Traffic Control	Crash Speed Limit	Road Surface	Conditions	Lighting	Horiz Alignment	Vertical Alignment	Crash Description
0	Car/Station wagon	Go straight ahead	East	40469	Minor injury	2003	January	Wednesday	23	Overturned	Single Vehicle	-27.6614	153.1736255	Ledsa Dr	No traffic control	Local	Intersection - Roundabout	No traffic control	0 - 50 km/h	Sealed - Dry	Clear	Darkness - Lighted	Straight	Level	Off Path-Straight-Out Of Control On Cway
0	Articulated truck	Make left turn	West	65389	Medical treatment	2003	November	Sunday	14	Overturned	Single Vehicle	-27.5902	152.8332964	River Rd	Riverview Rd	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Curved - view open	Level	Vehicle Left-Turning At I/S (Or Driveway
0	Articulated truck	Make left turn	West	139145	Minor injury	2007	November	Tuesday	9	Overturned	Single Vehicle	-27.5366	152.9480748	Seventeen Mile Rocks Rd	Western Art Rd Ramp Cb	State	Intersection - Roundabout	No traffic control	60 km/h	Sealed - Dry	Clear	Daylight	Curved - view open	Grade	Vehicle Left-Turning At I/S (Or Driveway
0	Articulated truck	Make right turn	East	50517	Hospitalisation	2003	April	Tuesday	5	Overturned	Single Vehicle	-27.5904	152.8317715	River Rd	Westphalen Dr	Local	Intersection - Roundabout	No traffic control	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Off Path-Straight: Right Turn
0	Rigid truck	Go straight ahead	West	178682	Minor injury	2008	April	Tuesday	8	Overturned	Single Vehicle	-27.4131	153.0883098	Airport Dr	Lomandra Dr	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Off Path-Straight: Out Of Control On Cway
0	Rigid truck	Make left turn	North	133948	Minor injury	2006	November	Tuesday	11	Overturned	Single Vehicle	-27.5904	152.832983	River Rd	Riverview Rd	Local	Intersection - Roundabout	No traffic control	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Off Path-Straight: Left Turn
0	Rigid truck	Make right turn	East	20685	Property damage only	2001	December	Thursday	13	Overturned	Single Vehicle	-27.4124	153.0885531	Airport Dr	Lomandra Dr	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Off Path-Straight: Right Turn
0	Road train/B-double/Triple	Go straight ahead	East	129172	Medical treatment	2006	July	Tuesday	27	Overturned	Single Vehicle	-27.5904	153.8330421	River Rd	Riverview Rd	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Darkness - Lighted	Straight	Level	Off Path-Straight: Right Turn
0	Special Purpose Vehicle	Go straight ahead	West	25558	Hospitalisation	2002	April	Friday	6	Overturned	Single Vehicle	-27.5944	153.0040635	King Ave	Leardroy Rd	Local	Intersection - Roundabout	Give way sign	70 km/h	Sealed - Dry	Clear	Darkness - Lighted	Straight	Level	Off Path-Straight: Out Of Control On Cway
0	Car/Station wagon	Go straight ahead	South	82367	Property damage only	2004	August	Wednesday	1	Overturned	Single Vehicle	-28.0165	153.3685807	Birmingham Rd	Lewisham Rd	Local	Intersection - Roundabout	No traffic control	80 - 90 km/h	Sealed - Dry	Clear	Darkness - Lighted	Straight	Level	Off Path-Straight: Out Of Control On Cway
0	Car/Station wagon	Go straight ahead	North	33807	Medical treatment	2002	July	Saturday	12	Overturned	Single Vehicle	-27.5762	152.9449454	Centenary Hwy	Ipswich Hwy	State	Intersection - Roundabout	No traffic control	80 - 90 km/h	Sealed - Wet	Raining	Daylight	Curved - view open	Level	Off Path-Curve: Off Cway Right Bend
0	Car/Station wagon	Make right turn	East	138654	Property damage only	2007	January	Wednesday	6	Overturned	Single Vehicle	-27.576	152.9448943	Cunningham Art Rd Ramp Lp	Cunningham Arterial Rd	State	Intersection - Roundabout	No traffic control	80 - 90 km/h	Sealed - Wet	Raining	Daylight	Straight	Level	Off Path-Curve: Off Cway Right Bend
1	Articulated truck	Make right turn	East	154631	Property damage only	2007	December	Wednesday	17	Overturned	Single Vehicle	-27.3957	153.1642026	Lucinda Dr	Port Dr	Local	Intersection - Roundabout	Give way sign	0 - 50 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Off Path-Straight-Out Of Control On Cway
1	Car/Station wagon	Go straight ahead	East	78748	Medical treatment	2004	August	Saturday	20	Overturned	Single Vehicle	-25.3067	152.8530412	Doolong Rd	Doolong South Rd	Local	Intersection - Roundabout	Give way sign	0 - 50 km/h	Unsealed - Dry	Clear	Darkness - Not lighted	Straight	Level	Off Path-Straight-Out Of Control On Cway
1	Car/Station wagon	Go straight ahead	South	177396	Property damage only	2008	September	Friday	22	Overturned	Single Vehicle	-27.5244	153.3382427	Town Centre Dr		Local	Intersection - Roundabout	No traffic control	0 - 50 km/h	Sealed - Dry	Clear	Darkness - Lighted	Straight	Level	Off Path-Straight-Out Of Control On Cway
1	Car/Station wagon	Make right turn	North	454172	Property damage only	2003	February	Monday	0	Overturned	Single Vehicle	-26.3893	153.0920805	Hastings St	Park Rd	Local	Intersection - Roundabout	Give way sign	0 - 50 km/h	Sealed - Wet	Clear	Darkness - Lighted	Straight	Level	Off Path-Straight: Right Turn
1	Car/Station wagon	Make right turn	North	48476	Property damage only	2003	April	Sunday	16	Overturned	Single Vehicle	-26.4099	153.1030828	Resolute St	Southern Cross Pde	Local	Intersection - Roundabout	Give way sign	0 - 50 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Off Path-Straight: Right Turn
1	Car/Station wagon	Make U turn	East	201079	Hospitalisation	2009	September	Sunday	0	Overturned	Single Vehicle	-27.9455	153.3091154	Bowley St	Brockman Wy	Local	Intersection - Roundabout	Give way sign	0 - 50 km/h	Sealed - Dry	Clear	Darkness - Lighted	Straight	Level	Off Path-Straight: Out Of Control On Cway
1	Special Purpose Vehicle	Go straight ahead	North	167436	Medical treatment	2007	December	Wednesday	14	Overturned	Single Vehicle	-26.6524	153.0905564	Ocean St		Local	Intersection - Roundabout	Pedestrian crossing sign	0 - 50 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Vehicle's Manoeuvring: Other
1	Utility/Panel van	Go straight ahead	West	153573	Hospitalisation	2007	November	Sunday	1	Overturned	Single Vehicle	-12.6245	141.8798564	Cumunja Cl	Hibberd Dr	Local	Intersection - Roundabout	No traffic control	0 - 50 km/h	Sealed - Dry	Clear	Darkness - Lighted	Straight	Level	Off Path-Straight-Out Of Control On Cway
1	Utility/Panel van	Make right turn	East	194817	Property damage only	2009	May	Tuesday	23	Overturned	Single Vehicle	-21.115	149.2210177	East Point Dr	Ron Searle Dr	Local	Intersection - Roundabout	Give way sign	0 - 50 km/h	Sealed - Dry	Clear	Darkness - Lighted	Straight	Level	Off Path-Straight-Out Of Control On Cway
1	Utility/Panel van	Make right turn	West	193302	Hospitalisation	2012	February	Tuesday	0	Overturned	Single Vehicle	-19.3231	146.7432079	Klewarrra Blvd	Windarra Ave	Local	Intersection - Roundabout	Give way sign	0 - 50 km/h	Sealed - Dry	Clear	Darkness - Lighted	Straight	Crest	Off Path-Straight: Right Turn
1	Articulated truck	Go straight ahead	South	215148	Medical treatment	2007	August	Tuesday	10	Overturned	Single Vehicle	-27.3938	153.1639672	Lucinda Dr	Port Dr	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Off Path-Straight-Out Of Control On Cway
1	Articulated truck	Go straight ahead	North	136061	Hospitalisation	2006	December	Friday	15	Overturned	Single Vehicle	-27.3702	153.1770115	Port Dr		Local	Intersection - Roundabout	No traffic control	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Off Path-Straight-Out Of Control On Cway
1	Articulated truck	Go straight ahead	West	155632	Medical treatment	2007	July	Friday	8	Overturned	Single Vehicle	-27.5287	153.0473206	Beverleigh Rd	Jackson Rd	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Wet	Clear	Daylight	Straight	Level	Vehicle's Adjacent: Rearward Left Lane
1	Articulated truck	Make right turn	North	212530	Minor injury	2010	November	Friday	8	Overturned	Single Vehicle	-27.9935	152.6825117	Boonah - Fassifern Rd	Boonah - Rathdowney Rd	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Curved - view open	Grade	Off Path-Curve: Out Of Control On Cway
1	Articulated truck	Make right turn	South	181762	Property damage only	2010	January	Thursday	10	Overturned	Single Vehicle	-28.2406	152.0373056	Bracker Rd	Mcvoy St	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Grade	Off Path-Straight: Right Turn
1	Articulated truck	Make right turn	East	110642	Property damage only	2005	November	Monday	9	Overturned	Single Vehicle	-27.3957	153.1642295	Lucinda Dr	Port Dr	Local	Intersection - Roundabout	No traffic control	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Off Path-Straight: Right Turn
1	Articulated truck	Make right turn	West	217958	Hospitalisation	2009	August	Monday	16	Overturned	Single Vehicle	-27.6677	152.9131541	South West Art Rd On Ramp	Springfield Pky	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Off Path-Straight: Right Turn
1	Bus/Coach	Go straight ahead	East	165463	Medical treatment	2008	October	Saturday	8	Overturned	Single Vehicle	-25.2882	152.8381632	Main St	Maryborough - Hervey Bay Rd	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Dip	Off Path-Straight-Out Of Control On Cway
1	Car/Station wagon	Go straight ahead	North	94229	Property damage only	2004	December	Friday	1	Overturned	Single Vehicle	-19.2957	146.736468	Garbutt - Upper Ross Rd	Greenwood Dr	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Darkness - Lighted	Curved - view open	Level	Off Path-Curve: Out Of Control On Cway
1	Car/Station wagon	Go straight ahead	South	208481	Property damage only	2010	January	Sunday	12	Overturned	Single Vehicle	-26.7119	153.0697528	Sippy Downs Dr		Local	Intersection - Roundabout	No traffic control	60 km/h	Sealed - Dry	Clear	Daylight	Curved - view open	Level	Off Path-Curve: Out Of Control On Cway
1	Car/Station wagon	Go straight ahead	West	111958	Property damage only	2006	February	Tuesday	14	Overturned	Single Vehicle	-16.9283	145.7497089	Brown St	Gatton St	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Off Path-Straight: Right Off Cway
1	Car/Station wagon	Go straight ahead	South	130933	Property damage only	2006	July	Sunday	3	Overturned	Single Vehicle	-27.5237	153.116334	Cribb Rd	Scru Rd	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Wet	Clear	Darkness - Lighted	Straight	Level	Off Path-Straight-Out Of Control On Cway
1	Car/Station wagon	Go straight ahead	North	113159	Property damage only	2006	December	Thursday	2	Overturned	Single Vehicle	-16.924	145.7292359	McFarlane Dr	Ramey Dr	Local	Intersection - Roundabout	No traffic control	60 km/h	Sealed - Wet	Raining	Darkness - Lighted	Curved - view open	Level	Off Path-Curve: Out Of Control On Cway
1	Car/Station wagon	Make left turn	East	168009	Property damage only	2008	July	Tuesday	13	Overturned	Single Vehicle	-27.886	153.3481975	Audrey Ave	Eastpark Dr	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Off Path-Straight: Left Turn
1	Car/Station wagon	Make left turn	South	125918	Property damage only	2006	November	Saturday	6	Overturned	Single Vehicle	-25.8906	153.0799734	Clarkson Dr	Inskip Ave	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Off Path-Straight: Left Turn
1	Car/Station wagon	Make left turn	South	195031	Minor injury	2009	May	Sunday	1	Overturned	Single Vehicle	-16.9326	145.7738764	Draper St	Port Connection Rd	State	Intersection - Roundabout	No traffic control	60 km/h	Sealed - Dry	Clear	Darkness - Lighted	Straight	Level	Off Path-Straight: Left Turn
1	Car/Station wagon	Make right turn	South	83256	Property damage only	2004	July	Saturday	21	Overturned	Single Vehicle	-16.9328	145.7737156	Draper St	Kenny St	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Wet	Clear	Darkness - Lighted	Straight	Level	Off Path-Straight: Left Off Cway
1	Car/Station wagon	Slow or stop	South	29536	Property damage only	2002	June	Sunday	3	Overturned	Single Vehicle	-27.2383	153.1132561	Macdonnell Rd	Marine Pde	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Darkness - Lighted	Straight	Level	Off Path-Straight-Out Of Control On Cway
1	Rigid truck	Go straight ahead	South	40065	Property damage only	2002	December	Friday	10	Overturned	Single Vehicle	-16.9434	145.705286	Aumuller St	Cook St	Local	Intersection - Roundabout	No traffic control	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Grade	Off Path-Straight-Out Of Control On Cway
1	Rigid truck	Make left turn	North	8420	Property damage only	2008	January	Saturday	12	Overturned	Single Vehicle	-27.0666	153.173235	Cartan Rd	Bayou Dr	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Wet	Clear	Daylight	Straight	Level	Off Path-Straight: Right Off Cway
1	Rigid truck	Make right turn	South	22318	Hospitalisation	2011	April	Tuesday	6	Overturned	Single Vehicle	-28.9323	153.1010002	Blondies Blvd	Pelican Waters Blvd	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Wet	Raining	Daylight	Straight	Level	Off Path-Straight: Right Turn
1	Rigid truck	Make U turn	South	105904	Minor injury	2005	September	Thursday	9	Overturned	Single Vehicle	-19.3023	146.7353227	Garbutt - Upper Ross Rd	Tavern St	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Off Path-Straight-Out Of Control On Cway
1	Road train/B-double/Triple	Make right turn	North	232340	Hospitalisation	2011	September	Monday	10	Overturned	Single Vehicle	-27.6093	152.9223856	Formation St	Mica St	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Off Path-Straight: Right Turn
1	Special Purpose Vehicle	Go straight ahead	North	43352	Property damage only	2002	October	Tuesday	11	Overturned	Single Vehicle	-27.9122	153.4029184	Bayview St	Lae Dr	Local	Intersection - Roundabout	No traffic control	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Off Path-Straight-Out Of Control On Cway
1	Special Purpose Vehicle	Make right turn	East	156909	Hospitalisation	2007	September	Wednesday	12	Overturned	Single Vehicle	-27.4017	152.9795819	Osborne Rd	Pullen Rd	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Curved - view open	Grade	Vehicle Right-Turning At I/S (Or Driveway
1	Special Purpose Vehicle	Make right turn	West	148560	Minor injury	2007	October	Wednesday	7	Overturned	Single Vehicle	-27.6269	153.1279065	Park Rd	Watland St	Local	Intersection - Roundabout	No traffic control	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Dip	Off Path-Straight: Right Turn
1	Utility/Panel van	Go straight ahead	West	14668	Property damage only	2001	July	Thursday	16	Overturned	Single Vehicle	-16.9164	145.7615031	Grove St	Martyn St	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Off Path-Straight-Out Of Control On Cway
1	Utility/Panel van	Go straight ahead	South	35718	Property damage only	2002	July	Friday	19	Overturned	Single Vehicle	-28.0762	153.3783237	Robina Town Centre Dr		Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Darkness - Lighted	Curved - view open	Level	Off Path-Curve: Off Cway Left Bend
1	Utility/Panel van	Go straight ahead	West	75328	Property damage only	2008	January	Friday	12	Overturned	Single Vehicle	-27.0666	153.1498728	Beverleigh Rd	Ferguson Ave	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Wet	Raining	Daylight	Straight	Level	Off Path-Straight: Right Off Cway
1	Utility/Panel van	Go straight ahead	West	121818	Property damage only	2010	December	Sunday	8	Overturned	Single Vehicle	-25.2882	152.8381632	Main St	Maryborough - Hervey Bay Rd	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Wet	Raining	Daylight	Straight	Crest	Off Path-Straight-Out Of Control On Cway
1	Utility/Panel van	Go straight ahead	South	41573	Property damage only	2002	December	Wednesday	17	Overturned	Single Vehicle	-27.563	153.1993749	Ney Rd	Redland Bay Rd	State	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Wet	Raining	Daylight	Straight	Grade	Off Path-Straight-Out Of Control On Cway
1	Utility/Panel van	Make left turn	North	155920	Medical treatment	2007	December	Thursday	20	Overturned	Single Vehicle	-27.4936	153.2137199	Birkdale Rd	Quarry Rd	State	Intersection - Roundabout	No traffic control	60 km/h	Sealed - Dry	Clear	Darkness - Lighted	Straight	Grade	Off Path-Straight: Left Turn
1	Utility/Panel van	Make left turn	North	65669	Medical treatment	2003	October	Wednesday	18	Overturned	Single Vehicle	-27.5249	153.2694227	Shore St West	Wynyard St	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Dry	Clear	Darkness - Lighted	Straight	Level	Off Path-Straight: Left Turn
1	Utility/Panel van	Make right turn	South	216710	Hospitalisation																				

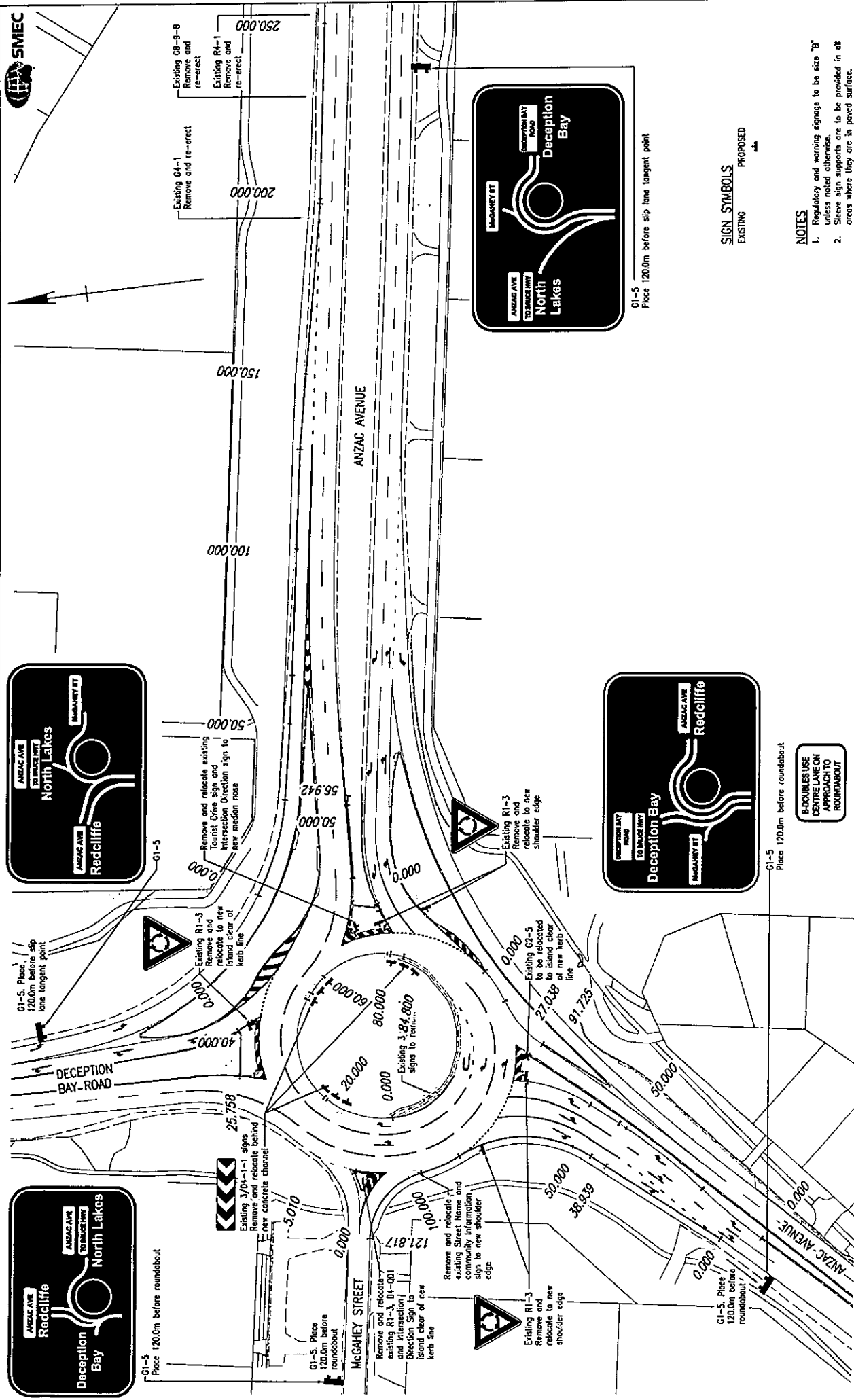
2	Utility/Panel van	Make right turn	East	114485	Property damage only	2006	January	Saturday	1	Overturned	Single Vehicle	-27.8947	153.3288305	Clarence Dr	Warrego Wy	Local	Intersection - Roundabout	Give way sign	60 km/h	Sealed - Wet	Raining	Darkness - Lighted	Straight	Level	Off Path-Straight: Right Turn
2	Articulated truck	Go straight ahead	East	227119	Minor injury	2009	October	Friday	11	Overturned	Single Vehicle	-27.672	153.0747054	Bayliss Rd	Browns Plains Rd	Local	Intersection - Roundabout	Give way sign	70 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Off Path-Straight: Out Of Control On Cway
2	Car/Station wagon	Go straight ahead	South	187643	Minor injury	2009	August	Saturday	4	Overturned	Single Vehicle	-27.664	153.1191556	Bega Rd	Brisbane - Beenleigh Rd	State	Intersection - Roundabout	No traffic control	70 km/h	Sealed - Dry	Clear	Darkness - Lighted	Straight	Level	Off Path-Straight: Out Of Control On Cway
2	Car/Station wagon	Go straight ahead	North	88713	Property damage only	2005	January	Wednesda	6	Overturned	Single Vehicle	-27.1806	152.9460541	Banyan St	New Settlement Rd	Local	Intersection - Roundabout	Give way sign	70 km/h	Sealed - Wet	Raining	Daylight	Curved - view obscured	Level	Off Path-Curve: Other
2	Car/Station wagon	Go straight ahead	West	125611	Property damage only	2007	May	Monday	9	Overturned	Single Vehicle	-26.796	153.1086228	Caloundra Rd	Daniel St	State	Intersection - Roundabout	No traffic control	70 km/h	Sealed - Wet	Raining	Daylight	Straight	Level	Off Path-Straight: Left Off Cway
2	Car/Station wagon	Go straight ahead	West	143653	Minor injury	2007	March	Thursday	21	Overturned	Single Vehicle	-27.0488	153.1529914	Eagles Landing	Sunderland Dr	Local	Intersection - Roundabout	No traffic control	70 km/h	Sealed - Wet	Raining	Darkness - Lighted	Straight	Level	Off Path-Straight: Out Of Control On Cway
2	Car/Station wagon	Go straight ahead	East	34729	Property damage only	2002	June	Monday	6	Overturned	Single Vehicle	-28.0324	153.385948	Gold Coast - Springbrook Rd	Robina Parkway	State	Intersection - Roundabout	Give way sign	70 km/h	Sealed - Wet	Raining	Dawn/Dusk	Straight	Level	Off Path-Straight: Out Of Control On Cway
2	Road train/B-double/Triple	Go straight ahead	South	16031	Minor injury	2001	October	Saturday	8	Overturned	Single Vehicle	-23.4141	150.4986675	Bruce Hwy	Capricorn Hwy	State	Intersection - Roundabout	Give way sign	70 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Off Path-Straight: Right Off Cway
2	Special Purpose Vehicle	Go straight ahead	West	169948	Medical treatment	2008	June	Monday	13	Overturned	Single Vehicle	-27.9265	153.2999126	Binstead Wy	Greenway Bvd	Local	Intersection - Roundabout	Give way sign	70 km/h	Sealed - Dry	Clear	Daylight	Curved - view open	Level	Off Path-Curve: Out Of Control On Cway
2	Articulated truck	Go straight ahead	South	196677	Medical treatment	2008	August	Thursday	9	Overturned	Single Vehicle	-26.7341	153.1117125	Brightwater Blvd	Kawana Wy	State	Intersection - Roundabout	No traffic control	80 - 90 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Off Path-Straight: Out Of Control On Cway
2	Articulated truck	Go straight ahead	East	109824	Medical treatment	2005	October	Friday	11	Overturned	Single Vehicle	-19.3177	146.7928296	Bruce Hwy	Macarthur Dr	State	Intersection - Roundabout	No traffic control	80 - 90 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Off Path-Straight: Out Of Control On Cway
2	Articulated truck	Make left turn	South	28863	Property damage only	2002	February	Friday	10	Overturned	Single Vehicle	-27.5412	151.870875	Toowoomba - Cecil Plains Rd	Troys Rd	State	Intersection - Roundabout	Give way sign	80 - 90 km/h	Sealed - Dry	Clear	Daylight	Curved - view open	Grade	Off Path-Curve: Out Of Control On Cway
2	Bus/Coach	Go straight ahead	South	55236	Property damage only	2003	August	Friday	7	Overturned	Single Vehicle	-16.8001	145.6871553	Captain Cook Hwy	Trinity Beach Rd	State	Intersection - Roundabout	Give way sign	80 - 90 km/h	Sealed - Wet	Raining	Daylight	Straight	Level	Off Path-Straight: Out Of Control On Cway
2	Car/Station wagon	Go straight ahead	North	173147	Minor injury	2008	November	Monday	18	Overturned	Single Vehicle	-16.7927	145.6783439	Captain Cook Hwy	Discovery Dr	State	Intersection - Roundabout	No traffic control	80 - 90 km/h	Sealed - Wet	Raining	Darkness - Not lighted	Straight	Level	Off Path-Straight: Out Of Control On Cway
2	Car/Station wagon	Go straight ahead	South	2435	Property damage only	2001	February	Friday	14	Overturned	Single Vehicle	-16.8401	145.6928163	Captain Cook Hwy	Kennedy Hwy	State	Intersection - Roundabout	Give way sign	80 - 90 km/h	Sealed - Wet	Raining	Daylight	Straight	Level	Off Path-Straight: Left Off Cway
2	Car/Station wagon	Go straight ahead	North	53753	Property damage only	2003	May	Sunday	8	Overturned	Single Vehicle	-16.8637	145.7312376	Captain Cook Hwy	Machans Beach Access Rd	State	Intersection - Roundabout	Give way sign	80 - 90 km/h	Sealed - Wet	Raining	Daylight	Straight	Level	Off Path-Straight: Left Off Cway
2	Car/Station wagon	Go straight ahead	North	183127	Property damage only	2008	December	Wednesda	11	Overturned	Single Vehicle	-16.8636	145.7310093	Captain Cook Hwy	Machans Beach Access Rd	State	Intersection - Roundabout	No traffic control	80 - 90 km/h	Sealed - Wet	Clear	Daylight	Curved - view open	Level	Off Path-Curve: Off Cway Right Bend
2	Car/Station wagon	Go straight ahead	North	57799	Minor injury	2003	October	Monday	12	Overturned	Single Vehicle	-16.8636	145.731203	Captain Cook Hwy	Machans Beach Access Rd	State	Intersection - Roundabout	No traffic control	80 - 90 km/h	Sealed - Wet	Raining	Daylight	Straight	Level	Off Path-Straight: Left Off Cway
2	Car/Station wagon	Go straight ahead	North	86564	Medical treatment	2004	October	Tuesday	18	Overturned	Single Vehicle	-21.0999	149.1600021	Holts Rd	Mackay - Bucasia Rd	State	Intersection - Roundabout	Give way sign	80 - 90 km/h	Sealed - Wet	Raining	Darkness - Lighted	Straight	Level	Off Path-Straight: Left Off Cway
2	Car/Station wagon	Make left turn	East	157277	Property damage only	2009	January	Friday	18	Overturned	Single Vehicle	-26.4943	153.0803111	Emu Mountain Rd	Peregian Springs Dr	State	Intersection - Roundabout	No traffic control	80 - 90 km/h	Sealed - Wet	Raining	Darkness - Lighted	Straight	Grade	Off Path-Straight: Out Of Control On Cway
2	Car/Station wagon	Overtake	South	155671	Property damage only	2007	August	Thursday	7	Overturned	Single Vehicle	-26.5351	153.0738756	Sunshine Mwy	Yandina - Coolum Rd	State	Intersection - Roundabout	No traffic control	80 - 90 km/h	Sealed - Wet	Raining	Daylight	Straight	Level	Off Path-Straight: Other
2	Rigid truck	Make right turn	North	121699	Hospitalisation	2006	March	Saturday	10	Overturned	Single Vehicle	-27.5412	151.8707929	Toowoomba - Cecil Plains Rd	Troys Rd	State	Intersection - Roundabout	No traffic control	80 - 90 km/h	Sealed - Dry	Clear	Daylight	Curved - view open	Grade	Off Path-Curve: Out Of Control On Cway
2	Special Purpose Vehicle	Make right turn	North	105773	Hospitalisation	2005	August	Monday	15	Overturned	Single Vehicle	-16.8487	145.7019537	Captain Cook Hwy	Yorkeys Knob Rd	State	Intersection - Roundabout	No traffic control	80 - 90 km/h	Sealed - Dry	Clear	Daylight	Curved - view obscured	Grade	Vehicle Right-Turning At I/S (Dr Drivewa
2	Special Purpose Vehicle	Make right turn	East	14959	Minor injury	2001	May	Monday	9	Overturned	Single Vehicle	-27.5943	153.0047052	King Ave	Sherbrooke Rd	Local	Intersection - Roundabout	No traffic control	80 - 90 km/h	Sealed - Dry	Clear	Daylight	Straight	Level	Off Path-Straight: Right Turn
2	Utility/Panel van	Go straight ahead	West	51871	Minor injury	2003	April	Sunday	1	Overturned	Single Vehicle	-16.8486	145.7022149	Captain Cook Hwy	Yorkeys Knob Rd	State	Intersection - Roundabout	No traffic control	80 - 90 km/h	Sealed - Dry	Clear	Darkness - Lighted	Straight	Level	Off Path-Straight: Out Of Control On Cway
2	Utility/Panel van	Go straight ahead	South	232184	Hospitalisation	2012	April	Friday	14	Overturned	Single Vehicle	-27.1942	152.9297599	Oakey Flat Rd	Raynbird Rd	Local	Intersection - Roundabout	Give way sign	80 - 90 km/h	Sealed - Dry	Clear	Daylight	Curved - view open	Level	Off Path-Curve: Out Of Control On Cway
2	Utility/Panel van	Go straight ahead	North	88196	Property damage only	2005	May	Sunday	23	Overturned	Single Vehicle	-16.8476	145.6869762	Cairns Western Arterial Rd	Captain Cook Hwy	State	Intersection - Roundabout	Give way sign	80 - 90 km/h	Sealed - Wet	Raining	Darkness - Lighted	Curved - view open	Level	Off Path-Curve: Other
2	Utility/Panel van	Go straight ahead	North	58817	Property damage only	2003	August	Monday	12	Overturned	Single Vehicle	-16.84	145.6926606	Captain Cook Hwy	Kennedy Hwy	State	Intersection - Roundabout	Give way sign	80 - 90 km/h	Sealed - Wet	Raining	Daylight	Straight	Level	Off Path-Straight: Left Off Cway
2	Utility/Panel van	Go straight ahead	North	75339	Hospitalisation	2004	February	Saturday	20	Overturned	Single Vehicle	-16.8636	145.7312101	Captain Cook Hwy	Machans Beach Access Rd	State	Intersection - Roundabout	No traffic control	80 - 90 km/h	Sealed - Wet	Raining	Darkness - Not lighted	Straight	Level	Off Path-Straight: Left Off Cway
2	Utility/Panel van	Go straight ahead	North	47815	Property damage only	2003	February	Saturday	22	Overturned	Single Vehicle	-16.8636	145.7312204	Captain Cook Hwy	Machans Beach Access Rd	State	Intersection - Roundabout	Give way sign	80 - 90 km/h	Sealed - Wet	Clear	Darkness - Lighted	Straight	Level	Off Path-Straight: Left Off Cway

14. Appendix F: Assorted Roundabout Design Plans

Parish of Smithfield

[illegible]



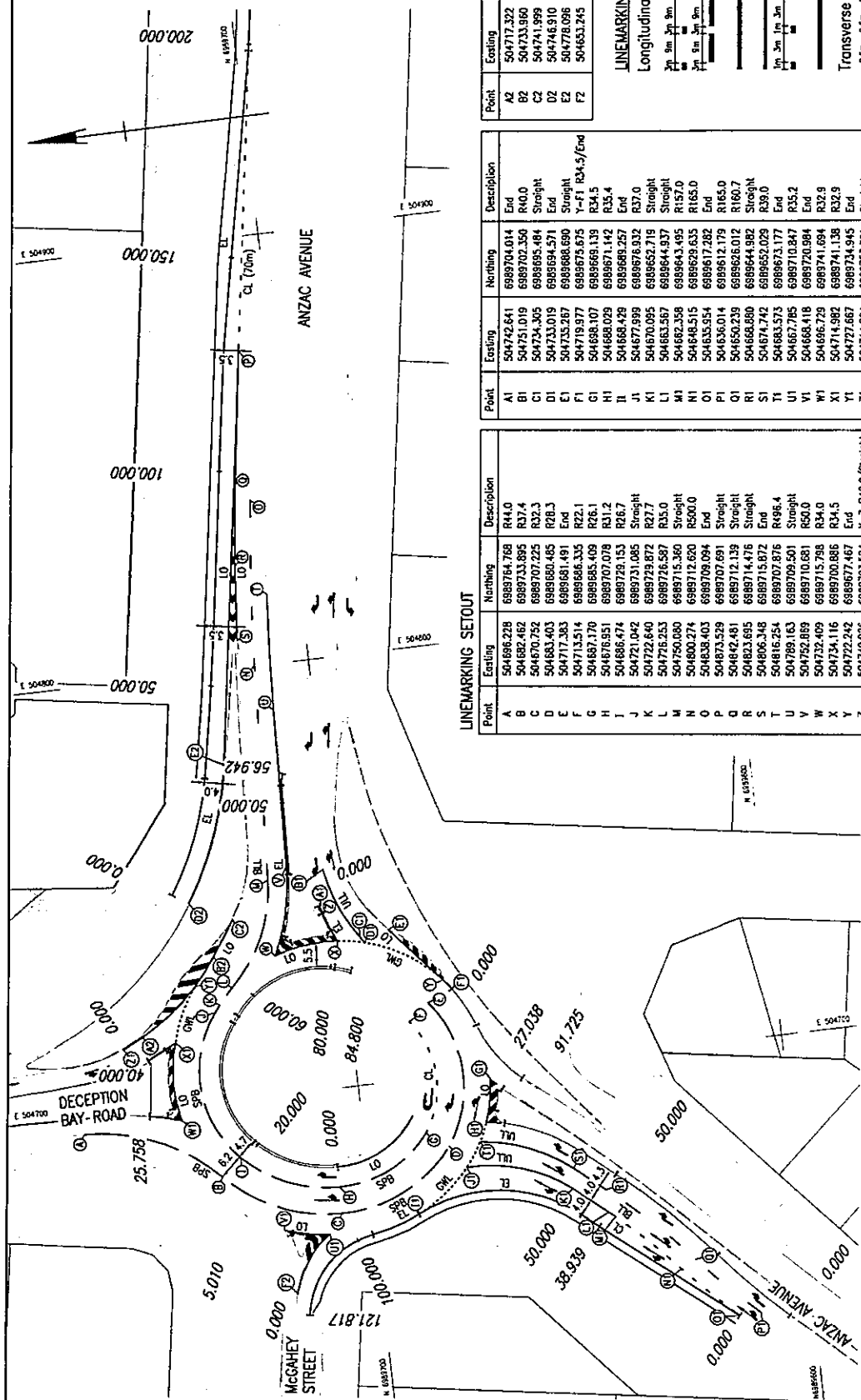


SIGN SYMBOLS

NOTES

1. Regulatory and warning signage to be size "B" unless noted otherwise.
2. Sleeve sign supports are to be provided in all areas where they are in paved surface.
3. All existing signs to remain unless noted otherwise.

[illegible]



LINEMARKING SETOUT

Point	Easting	Northing	Description
A	504686.225	6989754.788	R4.0
B	504682.462	6989733.585	R3.7.4
C	504670.752	6989707.225	R2.3.3
D	504663.403	6989680.465	R2.8.3
E	504717.383	6989681.491	End
F	504713.514	6989686.335	R2.1
G	504687.170	6989685.409	R2.6.1
H	504676.551	6989707.078	R3.1.2
I	504686.474	6989729.153	R2.6.7
J	504721.042	6989731.085	Straight
K	504722.640	6989729.872	R2.7
L	504726.253	6989726.587	R3.5.0
M	504750.080	6989715.360	Straight
N	504800.274	6989712.620	R50.0
O	504838.403	6989708.084	End
P	504833.529	6989707.691	Straight
Q	504842.481	6989712.139	Straight
R	504823.695	6989714.476	Straight
S	504806.348	6989715.672	End
T	504816.254	6989707.876	R496.4
U	504789.163	6989709.501	Straight
V	504752.859	6989710.681	R50.0
W	504732.409	6989715.798	R34.5
X	504734.116	6989700.886	R34.5
Y	504722.242	6989677.467	End
Z	504700.926	6989703.524	X-7 R40.0/Straight

Point	Easting	Northing	Description
A1	504742.641	6989704.014	End
B1	504751.019	6989702.350	R40.0
C1	504734.305	6989695.484	Straight
D1	504733.019	6989694.571	End
E1	504733.267	6989688.690	Straight
F1	504719.977	6989675.675	Y-F1 R34.5/End
G1	504698.107	6989668.139	R34.5
H1	504688.029	6989667.142	R35.4
I1	504676.429	6989669.257	End
J1	504677.999	6989676.932	R37.0
K1	504670.095	6989652.719	Straight
L1	504663.567	6989644.937	Straight
M1	504662.358	6989643.495	R157.0
N1	504648.515	6989629.635	R165.0
O1	504635.334	6989617.282	End
P1	504636.014	6989612.179	R165.0
Q1	504650.239	6989626.012	R160.7
R1	504660.880	6989644.982	Straight
S1	504674.742	6989652.029	R39.0
T1	504683.573	6989673.177	End
U1	504667.785	6989710.847	R25.2
V1	504668.418	6989720.984	End
W1	504686.729	6989741.138	R32.9
X1	504714.982	6989741.138	R32.9
Y1	504727.667	6989734.945	End
Z1	504714.884	6989733.321	Straight

Point	Easting	Northing	Description
A2	504717.322	6989748.572	R50.0
B2	504733.960	6989729.974	Straight
C2	504741.999	6989724.606	End
D2	504746.910	6989734.291	End
E2	504778.096	6989722.434	R80.0
F2	504653.745	6989719.659	End R23.0

LINEMARKING LEGEND

Longitudinal Lines

100mm Broken Lane Line	BL
100mm Special Purpose Broken	SPB
100mm Unbroken Lane Line	ULL
150mm Edge Lines	EL
200mm Continuity Line	CL
150mm Outline Markings	LO
300mm Goe Way Lines	OWL

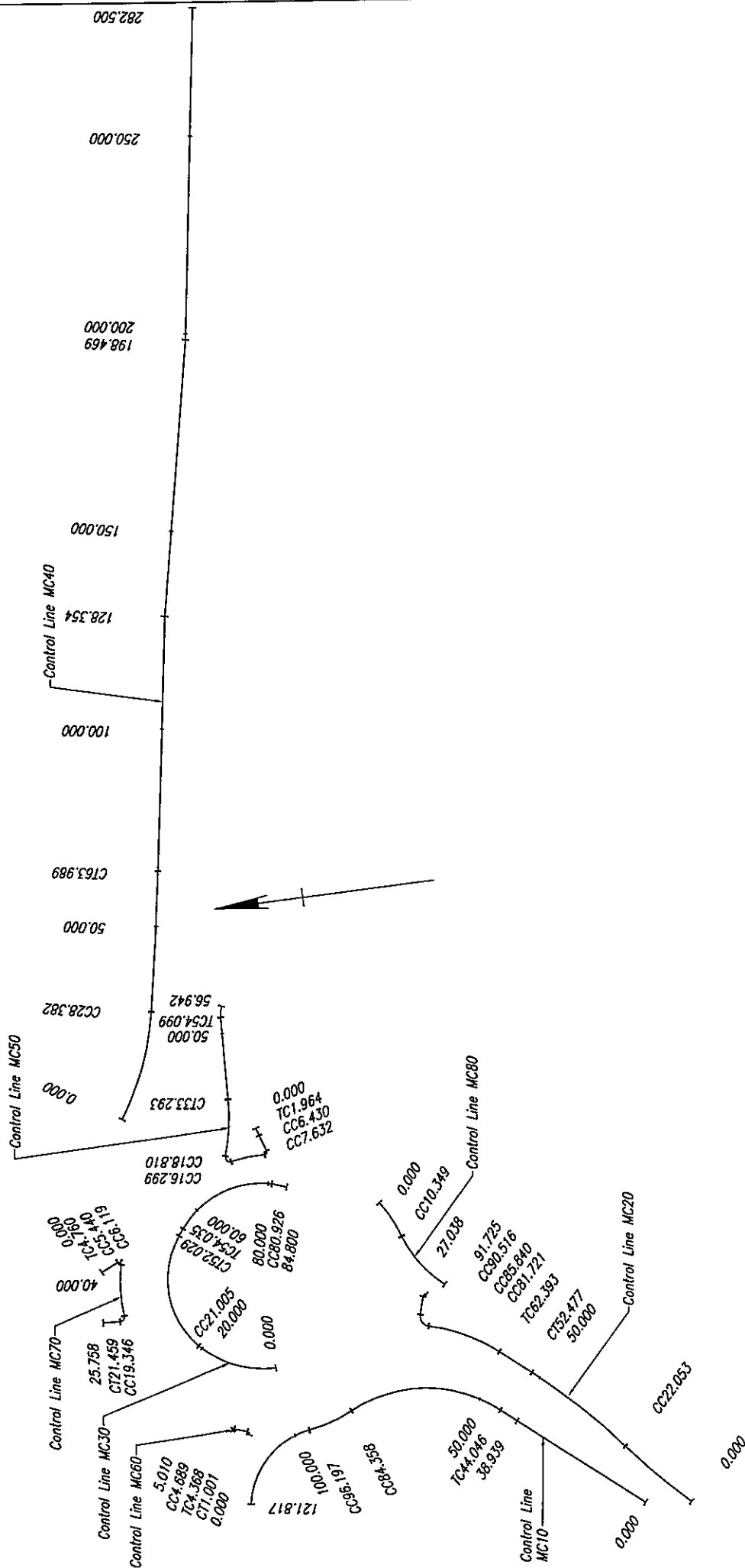
Transverse Lines

0.6m 0.6m 0.6m 0.6m	
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0.6m 0.6m 0.6m 0.6m	
0.6m 0.6m 0.6m 0.6m	


NOTES

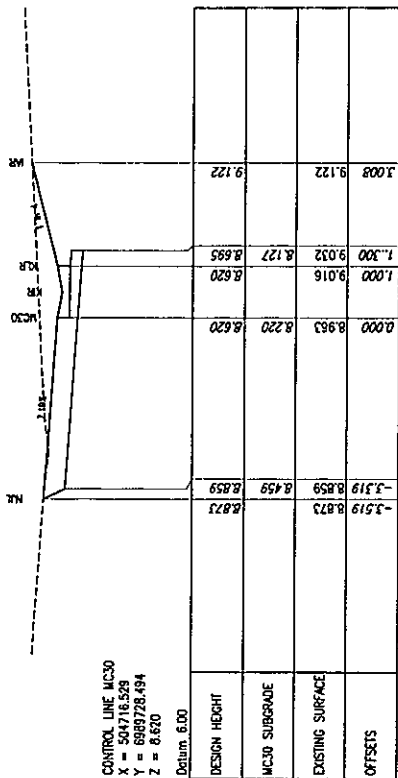
- All linemarking, chevron details and raised pavement markers shall be in accordance with the "Manual of Uniform Traffic Control Devices" (MUTCD). Main Roads specifications and standard drawings.
- All existing pavement markings and signs not to be incorporated into the works shall be removed.
- Align new pavement marking with existing pavement at limit of works.
- All linemarking point to be Type 3 unless noted otherwise, transverse turning lines, direction arrows and continuity lines at intersections to be thermoplastic point.

Queensland Government Transport and Main Roads	
PAVEMENT MARKINGS	Job No. 250/120/2 Contract No. NCH02512 Drawing No. 553695 Series Number 553695 Date 01-01-11
For advice approval Date 22/11/11 Signature [Signature] Name [Name] Title [Title]	For advice approval Date 22/11/11 Signature [Signature] Name [Name] Title [Title]
MORETON BAY REGIONAL COUNCIL REDCLIFFE ROAD INTERSECTION ANZAC AVE & DECEPTION BAY RD	
Design [Design] Verified [Verified] Checked [Checked] Drawn [Drawn]	Design [Design] Verified [Verified] Checked [Checked] Drawn [Drawn]
Projecting RP 120/7 From start to following RP 120/10 From end of job 120/10 From start to following RP 120/10	Projecting RP 120/7 From start to following RP 120/10 From end of job 120/10 From start to following RP 120/10
Scales 0 5 10 15 20m	
Dimensions shown in Meters, except where shown otherwise	
Associated Job No. [Job No.] Survey Data [Survey Data] Survey [Survey] Date [Date] Certification [Certification] Date [Date] Certification [Certification]	



NOTE:
For Setout Tables refer Detail Setout Sheet 2.

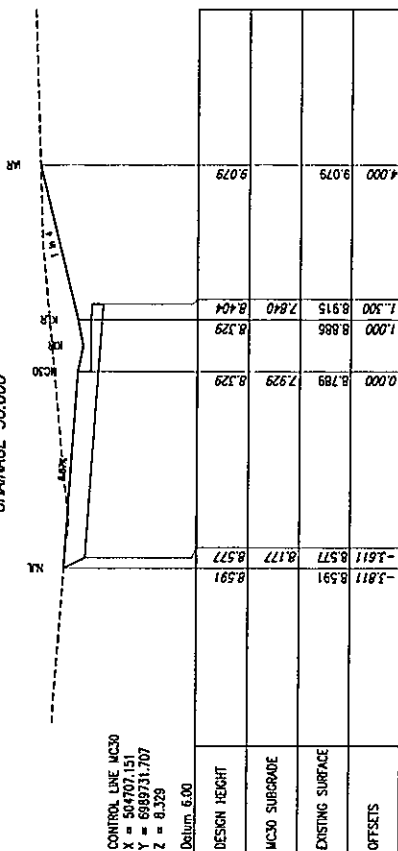
										Associated Job Info		SURVEY DATA		 Queensland Government			
										Auxiliary Day No		Horiz. Grid		AQ84		Transport and Main Roads	
										551688 -		Height		AQ84		Job No.	
										533710 -		Depth		AND Derived		Contract No.	
										533776 -		Survey		and of job		NCH02512	
										553176		Survey		and of job		Drawing No.	
												Survey		and of job		Series Number	
												Survey		and of job		DS-01 of 2	
												Survey		and of job		107/12	
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CONTROL LINE MC30
X = 504716.529
Y = 6989728.494
Z = 8.620

Datum: 6.00					
DESIGN HEIGHT					
OFFSETS	-3.519 -3.319	8.773 8.859		6.873 6.859	
EXISTING SURFACE					
W.C.O. SUBGRADE			8.220	8.620	
		9.016 9.032	8.127	8.620 8.685	
		9.122		9.122	

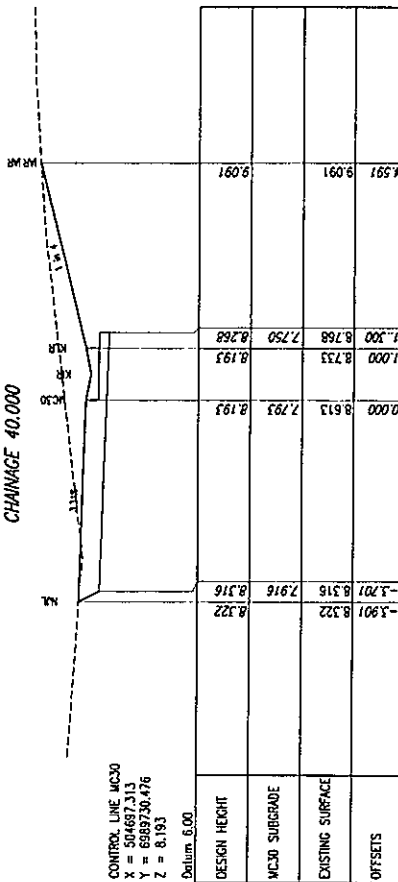
CHAINAGE 50.000



CONTROL LINE MC30
X = 504707.151
Y = 6989731.707

OFFSETS	-3.811	8.591	8.577	8.177	8.591	
EXISTING SURFACE						
3000 SUBGRADE						
DESIGN HEIGHT						
Column: 6.00						

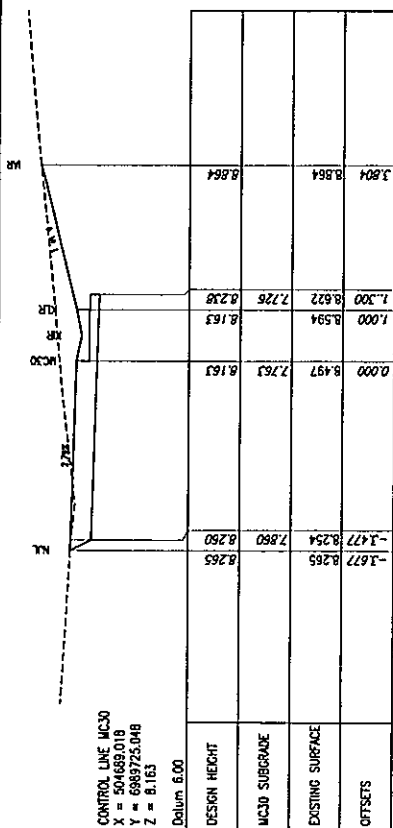
CHAINAGE 40.000



CONTROL LINE MC30
X = 504697.313
Y = 6989730.476

Datum: 5.00	
OFFSETS	-5.901 -5.701 0.000 0.613 0.733 0.750 8.268 8.193 8.193 8.316 8.322
EXISTING SURFACE	
MC30 SUBGRADE	
DESIGN HEIGHT	

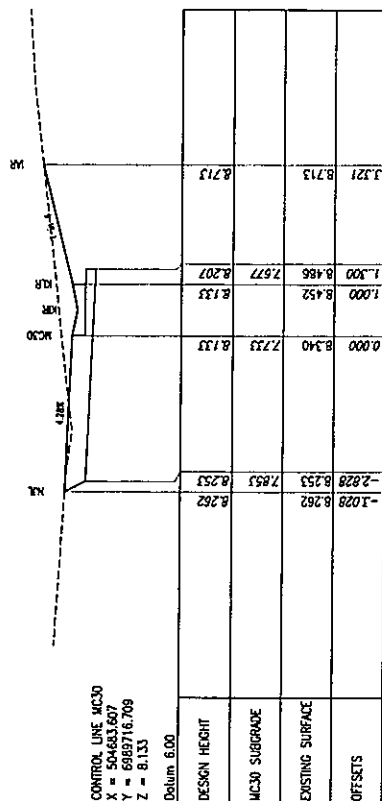
CHAINAGE 30.000



CONTROL LINE MC30
X = 504689.018
Y = 6989725.048

	Datum 6.00					
OFFSETS	-1.677	-3.477	0.000	8.163	8.238	8.864
EXISTING SURFACE	0.265	0.254	7.763	8.594	7.726	8.864
UC10 SUBGRADE						
DESIGN HEIGHT						

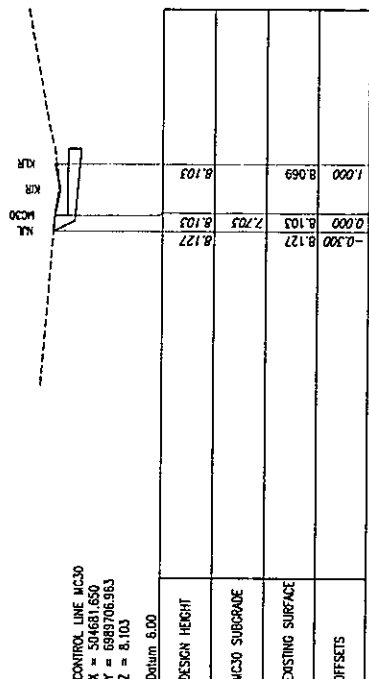
CHAINAGE 20.000



CONTROL LINE MC30
X = 504683.607
Y = 6989716.709

Datum: 6.00		Offsets	
DESIGN HEIGHT		1.028	-1.028
MC30 SURGRADE		8.262	-8.253
		8.253	-8.253
		8.340	-8.335
		8.452	-8.452
		8.486	-8.486
		8.713	-8.713
		8.713	-8.713

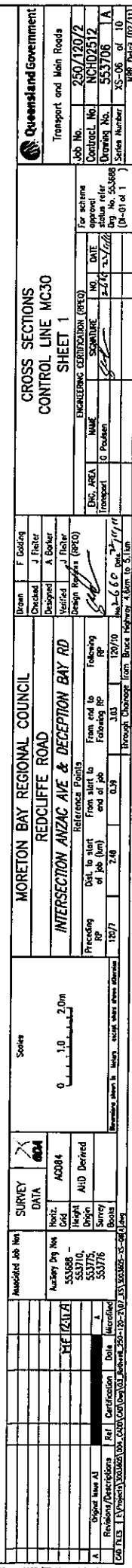
CHAINAGE 10.000



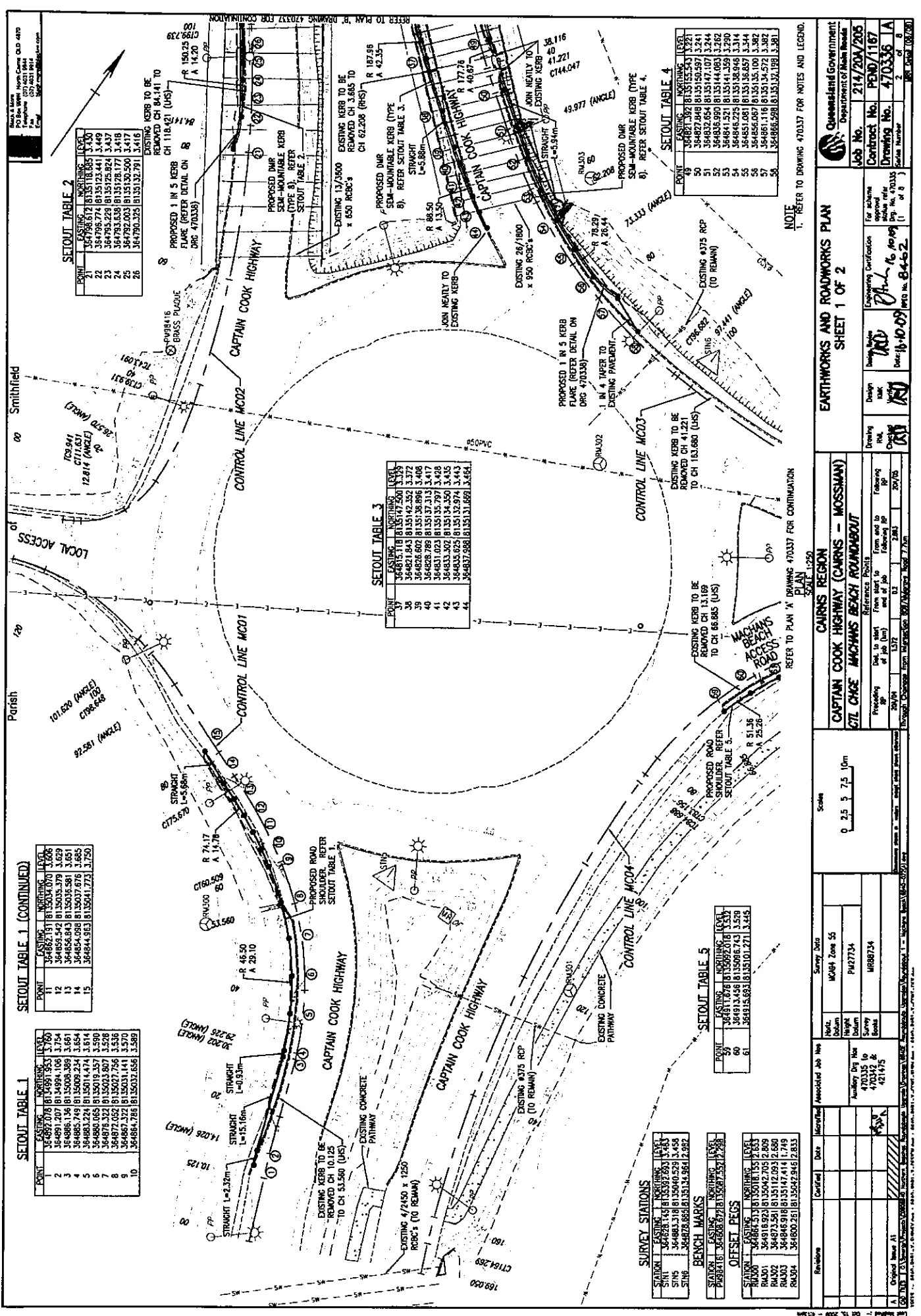
CONTROL LINE MC30
X = 504681.650
Y = 6989706.963

Offsets	-0.300	0.000	0.103	8.069	1.000
Coasting Surface	8.127	8.103	7.703	8.103	8.103
WC30 Subgrade	8.127	8.103			
Design Height					
Bottom 6.00					

CHAINAGE 0.000



<div> <div> </div> <div> Queensland Government </div> </div>		<div> <div> CROSS SECTIONS </div> <div> CONTROL LINE MC30 </div> <div> SHEET 2 </div> </div>		<div> <div> Transport and Main Roads </div> <div> Job No. 250/120/2 </div> <div> Contract No. NCHD/2512 </div> <div> Urgency No. 553707 </div> <div> Series Number 553707 </div> <div> W8-D8 60' 10' </div> <div> W8-D8 60' 10' </div> </div>	
<div> <div> ENGINEERING CERTIFICATION (REC) </div> <div> NAME </div> <div> NO. </div> <div> DATE </div> </div>		<div> <div> For scheme approved </div> <div> status refer </div> <div> Dwg. No. 553698 </div> <div> (A-01 of 1) </div> </div>			
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<div> <div> ENGINEERING CERTIFICATION (REC) </div> <div> NAME </div> <div> NO. </div> <div> DATE </div> </div>		<div> <div> For scheme approved </div> <div> status refer </div> <div> Dwg. No. 553698 </div> <div> (A-01 of 1) </div> </div>			
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<div> <div> ENGINEERING CERTIFICATION (REC) </div> <div> NAME </div> <div> NO. </div> <div> DATE </div> </div>		<div> <div> For scheme approved </div> <div> status refer </div> <div> Dwg. No. 553698 </div> <div> (A-01 of 1) </div> </div>			
<div> <div> ENGINEERING CERTIFICATION (REC) </div> <div> NAME </div> <div> NO. </div> <div> DATE </div> </div>		<div> <div> For scheme approved </div> <div> status refer </div> <div> Dwg. No. 553698 </div> <div> (A-01 of 1) </div> </div>			
<div> <div> ENGINEERING CERTIFICATION (REC) </div> <div> NAME </div> <div> NO. </div> <div> DATE </div></div>					



North Arrow
 To the North
 North Arrow
 To the North
 North Arrow
 To the North

SETOUT TABLE 1

POINT	EASTING	NORTHING	LEVEL
1	364882.131	8135034.070	1.626
2	364885.542	8135035.379	1.629
3	364886.843	8135035.581	1.631
4	364888.144	8135036.234	1.634
5	364883.224	8135014.474	1.614
6	364880.053	8135019.257	1.590
7	364875.053	8135023.756	1.576
8	364872.053	8135033.141	1.570
9	364868.745	8135032.656	1.569
10	364864.953	8135041.773	1.750

SETOUT TABLE 2

POINT	EASTING	NORTHING	LEVEL
21	364798.612	8135118.855	1.349
22	364798.774	8135123.441	1.349
23	364793.229	8135125.924	1.347
24	364793.638	8135128.177	1.346
25	364792.853	8135130.500	1.347
26	364792.329	8135132.191	1.347

SETOUT TABLE 3

POINT	EASTING	NORTHING	LEVEL
36	364833.118	8135147.500	1.379
37	364833.602	8135147.500	1.379
38	364834.602	8135147.500	1.379
39	364835.602	8135147.500	1.379
40	364836.602	8135147.500	1.379
41	364837.602	8135147.500	1.379
42	364838.602	8135147.500	1.379
43	364839.602	8135147.500	1.379
44	364840.602	8135147.500	1.379

SETOUT TABLE 4

POINT	EASTING	NORTHING	LEVEL
49	364871.382	8135155.553	1.351
50	364871.382	8135155.553	1.351
51	364871.382	8135155.553	1.351
52	364871.382	8135155.553	1.351
53	364871.382	8135155.553	1.351
54	364871.382	8135155.553	1.351
55	364871.382	8135155.553	1.351
56	364871.382	8135155.553	1.351
57	364871.382	8135155.553	1.351
58	364871.382	8135155.553	1.351

SETOUT TABLE 5

POINT	EASTING	NORTHING	LEVEL
59	364871.382	8135155.553	1.351
60	364871.382	8135155.553	1.351
61	364871.382	8135155.553	1.351

SURVEY STATIONS

STATION	EASTING	NORTHING	LEVEL
SV1	364881.145	8135026.543	1.483
SV2	364881.145	8135026.543	1.483
SV3	364881.145	8135026.543	1.483

BENCH MARKS

STATION	EASTING	NORTHING	LEVEL
BM1	364881.145	8135026.543	1.483
BM2	364881.145	8135026.543	1.483
BM3	364881.145	8135026.543	1.483

OFFSET PGS

STATION	EASTING	NORTHING	LEVEL
OS1	364881.145	8135026.543	1.483
OS2	364881.145	8135026.543	1.483
OS3	364881.145	8135026.543	1.483

NOTE
 1. REFER TO DRAWING 470337 FOR NOTES AND LEGEND.

Queensland Government Department of Main Roads	
Job No. 214/204/205	Contract No. PEN0/1167
Drawing No. 470336	Scale 1:1000
Design MTD	Check MTD
Date 16.10.09	Rev 1
CAIRNS REGION CAPTAIN COOK HIGHWAY (CAIRNS - MOSSMAN) CTL CHANCE JACKSONS BEACH ROUNDABOUT	
Scale 0 2.5 5 7.5 10m	Survey Data Book: M04 Zone 55 Station: PM27734 Survey Book: M080134
Associated Job No. 470335 to 470342 & 471475	Associated Job No. 470335 to 470342 & 471475
Confined No	Date 16.10.09
Revision 1	Original Issue At 1

CONTROL LINE MCO1 SETOUT TABLE

POINT	CHANCE	EASTING	NORTHING	BEARING	RADIUS	TANGENT	DEF. ANGLE	ARC LEN.
BP1	0.000	34898.342	81349.815	137.457° 14'			269° 56'	30.307
BP2	14.004	34898.077	81349.815	137.457° 14'			560° 42'	
BP3	73.226	34897.991	81350.093	142.340° 17' 10"				
BP4	30.202	34897.996	81350.102	136.437° 25'				
BP5	45.356	34897.687	81350.214	309.600° 15'				
BP6	64.598	34897.382	81350.327	309.600° 15'				
BP7	75.810	34897.081	81350.440	309.600° 15'				
BP8	92.581	34896.781	81350.553	309.600° 15'				
BP9	116.123	34896.481	81350.666	309.600° 15'				
BP10	140.664	34896.181	81350.779	309.600° 15'				
BP11	165.205	34895.881	81350.892	309.600° 15'				
BP12	189.746	34895.581	81351.005	309.600° 15'				
BP13	214.287	34895.281	81351.118	309.600° 15'				

CONTROL LINE MCO2 SETOUT TABLE

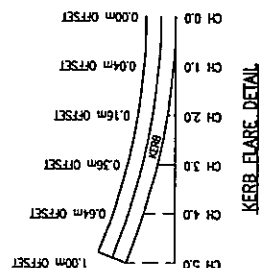
POINT	CHANCE	EASTING	NORTHING	BEARING	RADIUS	TANGENT	DEF. ANGLE	ARC LEN.
BP1	0.000	34898.183	81350.127	63.007° 35'				
BP2	10.786	34898.971	81350.644	63.007° 35'				
BP3	10.786	34899.759	81351.161	63.007° 35'				
BP4	10.786	34899.759	81351.161	63.007° 35'				
BP5	10.786	34899.759	81351.161	63.007° 35'				
BP6	10.786	34899.759	81351.161	63.007° 35'				
BP7	10.786	34899.759	81351.161	63.007° 35'				
BP8	10.786	34899.759	81351.161	63.007° 35'				
BP9	10.786	34899.759	81351.161	63.007° 35'				
BP10	10.786	34899.759	81351.161	63.007° 35'				
BP11	10.786	34899.759	81351.161	63.007° 35'				
BP12	10.786	34899.759	81351.161	63.007° 35'				
BP13	10.786	34899.759	81351.161	63.007° 35'				

CONTROL LINE MCO3 SETOUT TABLE

POINT	CHANCE	EASTING	NORTHING	BEARING	RADIUS	TANGENT	DEF. ANGLE	ARC LEN.
BP1	0.000	34898.183	81350.127	63.007° 35'				
BP2	10.786	34898.971	81350.644	63.007° 35'				
BP3	10.786	34899.759	81351.161	63.007° 35'				
BP4	10.786	34899.759	81351.161	63.007° 35'				
BP5	10.786	34899.759	81351.161	63.007° 35'				
BP6	10.786	34899.759	81351.161	63.007° 35'				
BP7	10.786	34899.759	81351.161	63.007° 35'				
BP8	10.786	34899.759	81351.161	63.007° 35'				
BP9	10.786	34899.759	81351.161	63.007° 35'				
BP10	10.786	34899.759	81351.161	63.007° 35'				
BP11	10.786	34899.759	81351.161	63.007° 35'				
BP12	10.786	34899.759	81351.161	63.007° 35'				
BP13	10.786	34899.759	81351.161	63.007° 35'				

CONTROL LINE MCO4 SETOUT TABLE

POINT	CHANCE	EASTING	NORTHING	BEARING	RADIUS	TANGENT	DEF. ANGLE	ARC LEN.
BP1	0.000	34898.183	81350.127	63.007° 35'				
BP2	10.786	34898.971	81350.644	63.007° 35'				
BP3	10.786	34899.759	81351.161	63.007° 35'				
BP4	10.786	34899.759	81351.161	63.007° 35'				
BP5	10.786	34899.759	81351.161	63.007° 35'				
BP6	10.786	34899.759	81351.161	63.007° 35'				
BP7	10.786	34899.759	81351.161	63.007° 35'				
BP8	10.786	34899.759	81351.161	63.007° 35'				
BP9	10.786	34899.759	81351.161	63.007° 35'				
BP10	10.786	34899.759	81351.161	63.007° 35'				
BP11	10.786	34899.759	81351.161	63.007° 35'				
BP12	10.786	34899.759	81351.161	63.007° 35'				
BP13	10.786	34899.759	81351.161	63.007° 35'				



TYPICAL ROAD CROSS SECTIONS AND SETOUT DETAILS

CARRIS REGION CAPTAIN COOK HIGHWAY (CARRIS - MOSSMAN)

0.7L ONE MACHINES BEACH ROUNDABOUT

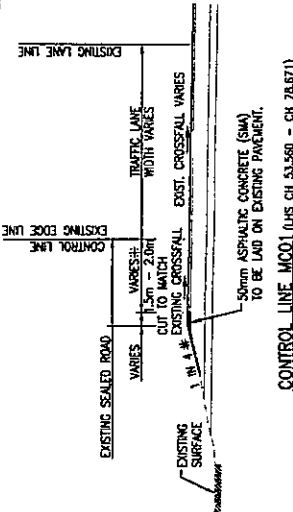
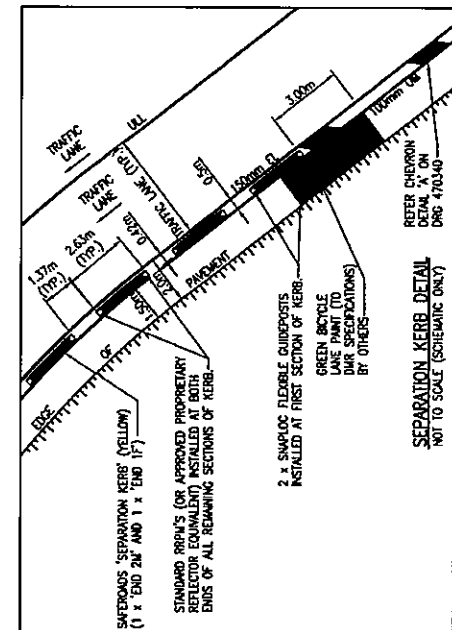
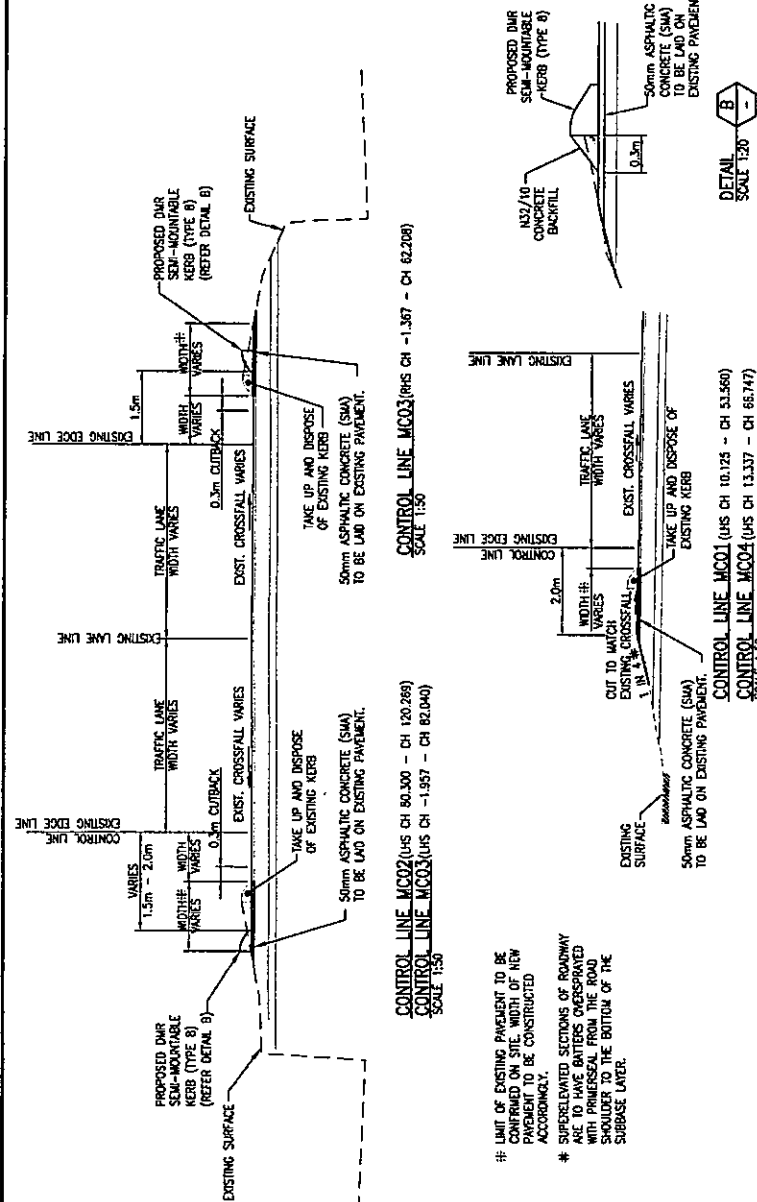
SEPARATION KERB DETAIL

NOT TO SCALE (SCHEMATIC ONLY)

SEPARATION KERB DETAIL

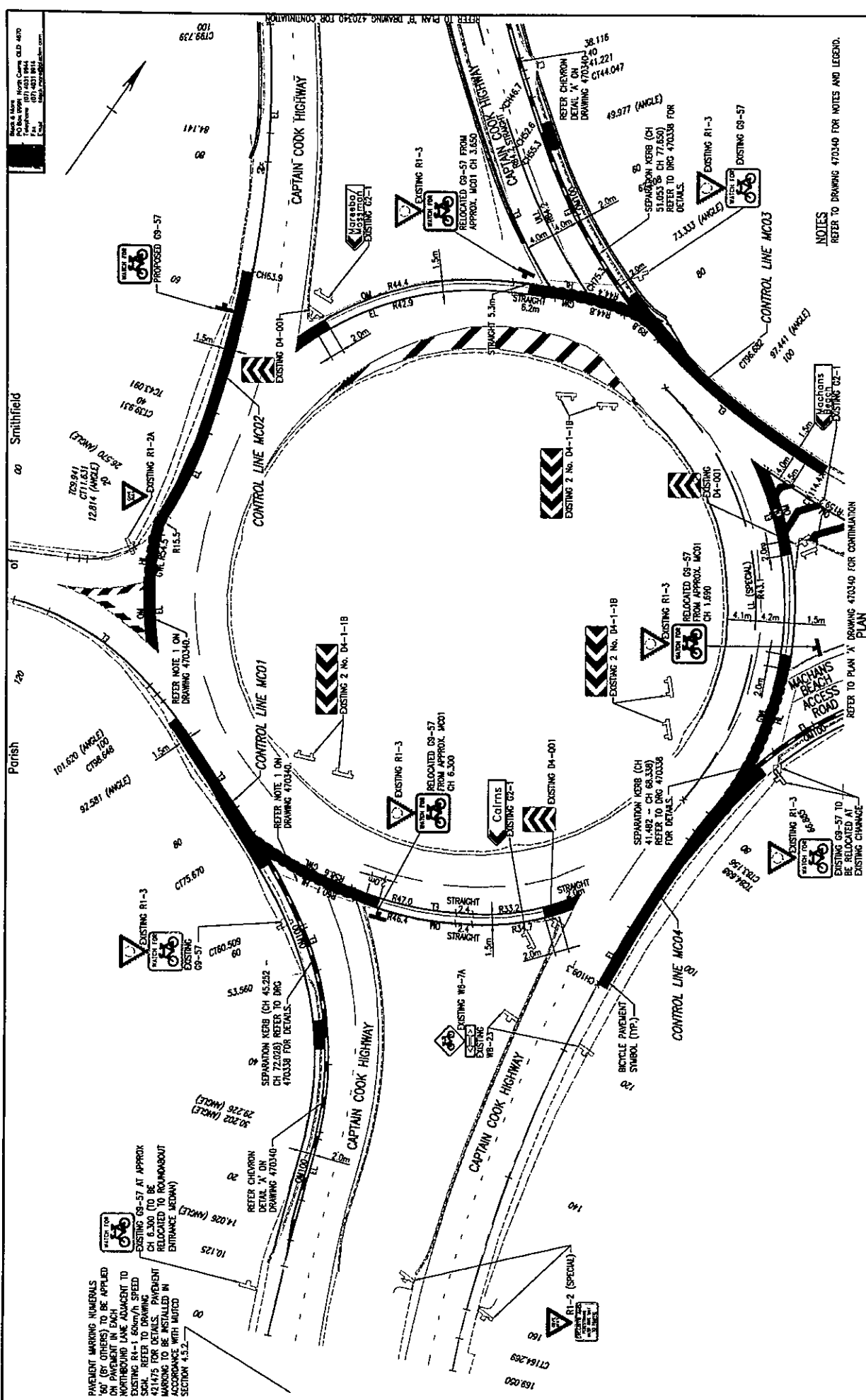
NOT TO SCALE (SCHEMATIC ONLY)

Revision	1	Date	10/10/2014	Associated Job No.	214/204/205
Author	MOA, Zone 55	Height	1.5m	Survey	MR8734
Checker	MR8734	Width	1.5m	Survey	MR8734
Drawn	MR8734	Depth	1.5m	Survey	MR8734
Scale	1:500	Area	1.5m	Survey	MR8734
Job No.	214/204/205	Volume	1 of 1	Survey	MR8734
Contract No.	214/204/205	Sheet No.	1 of 1	Survey	MR8734
Drawing No.	214/204/205	Sheet No.	1 of 1	Survey	MR8734
Job No.	214/204/205	Volume	1 of 1	Survey	MR8734
Contract No.	214/204/205	Sheet No.	1 of 1	Survey	MR8734
Drawing No.	214/204/205	Sheet No.	1 of 1	Survey	MR8734



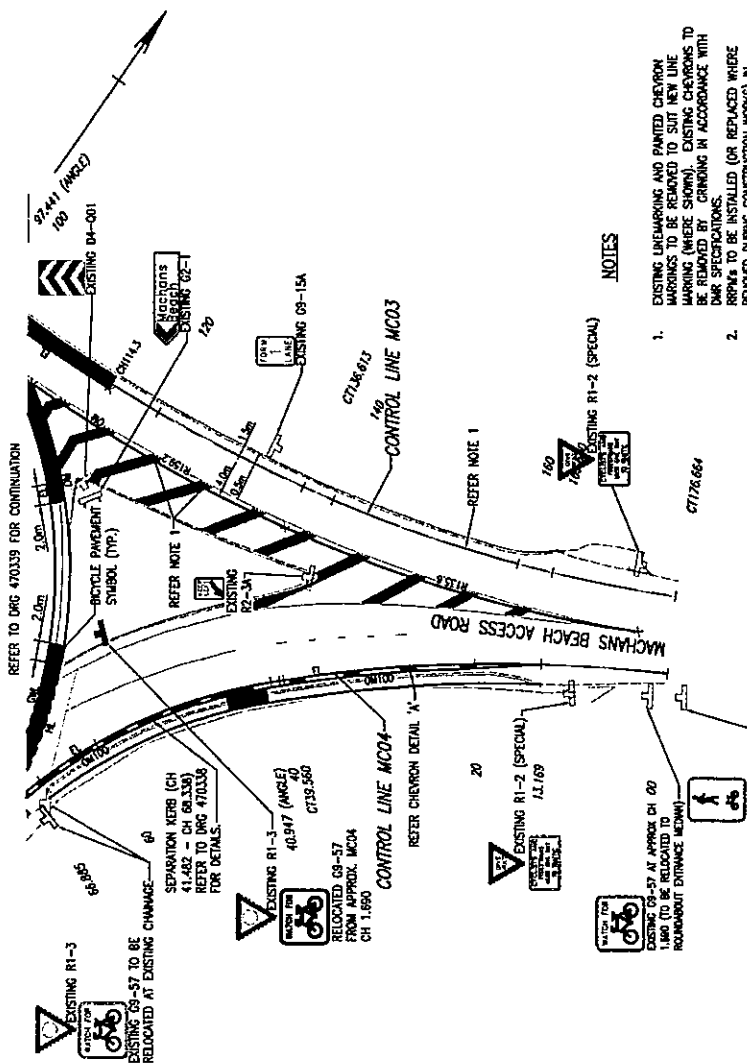
LIMIT OF EXISTING PAVEMENT TO BE CONFIRMED ON SITE. WIDTH OF NEW PAVEMENT TO BE CONSTRUCTED ACCORDINGLY.

SUPERELEVATED SECTIONS OF ROADWAY ARE TO HAVE BATTERS OVERSPRAYED WITH PRIMER SEAL FROM THE ROAD SHOULDER TO THE BOTTOM OF THE SUBGRADE LAYER.



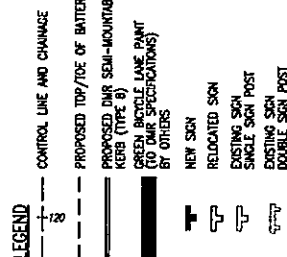
SIGNAGE AND PAVEMENT MARKING PLAN				SHEET 1 OF 2			
<p>NOTES</p> <p>REFER TO DRAWING 470340 FOR NOTES AND LEGEND.</p>				<p>Queensland Government</p> <p>Department of Main Roads</p>			
<p>Job No. 214/204/205</p> <p>Contract No. PND/1167</p> <p>Drawing No. 470339 1A</p> <p>Scale 1:1000</p> <p>Date 16-10-09</p> <p>Drawn by J. L. 16/10/09</p> <p>Checked by J. L. 16/10/09</p> <p>Approved by J. L. 16/10/09</p>				<p>Project Name CAPTAIN COOK HIGHWAY (CAIRNS - MOSSMAN)</p> <p>Project Location CAIRNS REGION</p> <p>Project Description CIL CHCE MACHANS BEACH ROUNDABOUT</p>			
<p>Scale 0 2.5 5 7.5 10m</p>				<p>Survey Data</p> <p>Horizontal Datum: MGA94 Zone 55</p> <p>Height Datum: PND27134</p> <p>Survey Date: 16/10/09</p> <p>Survey Station: 421475</p>			
<p>Revisions</p> <p>1. Original Issue A1</p>				<p>Associated Job No.</p> <p>470339 1A</p>			

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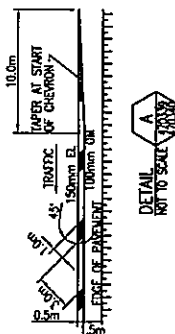
NOTES

1. EXISTING UNDERPASS AND PAINTED CHEVRON MARKINGS TO BE REMOVED TO SUIT NEW LINE MARKING (WHERE SHOWN). EXISTING CHEVRONS TO BE REMOVED BY GRINDING IN ACCORDANCE WITH ROAD SPECIFICATIONS.
2. RPPMS TO BE INSTALLED (OR REPLACED WHERE REMOVED DURING CONSTRUCTION WORKS) IN ACCORDANCE WITH PART 2 (SECTION 4) OF THE INTERIM PAVEMENT MANUAL OF UNIFORM TRAFFIC DEVICES (MUTCD) 4/2009.
3. TRANSVERSE WHITE PAINTED LINES OF TRAFFIC MARKINGS TO BE YELLOW PRESTIGATIONS TO BE YELLOW IN ACCORDANCE WITH PART 2 (SECTION 4) OF THE INTERIM PAVEMENT MANUAL OF UNIFORM TRAFFIC DEVICES (MUTCD) 4/2009.



LINE MARKING DIMENSIONS TABLE

TYPE	DESCRIPTION	LENGTH (mm)	GAP (mm)	WIDTH (mm)
—	COMMUNITY LINE	1000	3000	200
CL	EDGE LINE	—	—	150
EL	CRACK LINE	600	600	300
GL	CRACK LINE	600	600	300
HL	CRACK LINE	600	600	300
BL	CRACK LINE	3000	9000	100
UL	CRACK LINE	—	—	80
OM	CRACK LINE	—	—	150
Q	CRACK LINE	9000	3000	100
LL	CRACK LINE	—	—	100



DETAIL
NOT TO SCALE

PLAN 'B'
SCALE 1:250

PAVEMENT MARKING NUMERALS '60' (BY OTHERS) TO BE APPLIED ON PAVEMENT IN EACH NORTHBOUND LANE ADJACENT TO EXISTING R4-1 60km/h SPEED SIGN. REFER TO DRAWING 421475 FOR DETAILS. PAVEMENT MARKING TO BE INSTALLED IN ACCORDANCE WITH MUTCD SECTION 4.5.2³

EXISTING C9-57 AT APPROX
CH 3.650 (TO BE
RELOCATED TO ROUNDABOUT
ENTRANCE MEDIAN)

REFER TO DRC 470339 FOR CONTINUATION

PLAN 'A'
SCALE 1:250

[illegible]



Design Criteria

Reaction time	4 seconds
Approach design speed	from Cairns 64km/h
Approach design speed	from Mossman 62km/h
Approach design speed	from Holloways Beach 59km/h
Roundabout design speed	48km/h

[illegible]

CONTROL LINE MC01 SETPOINT TARIFF

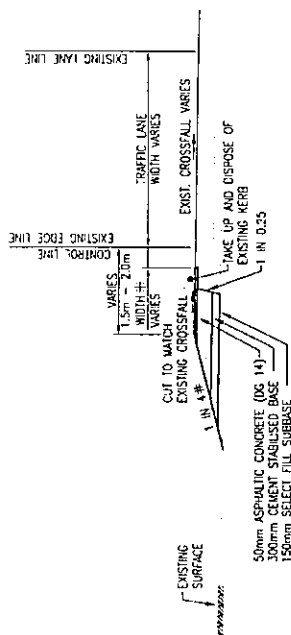
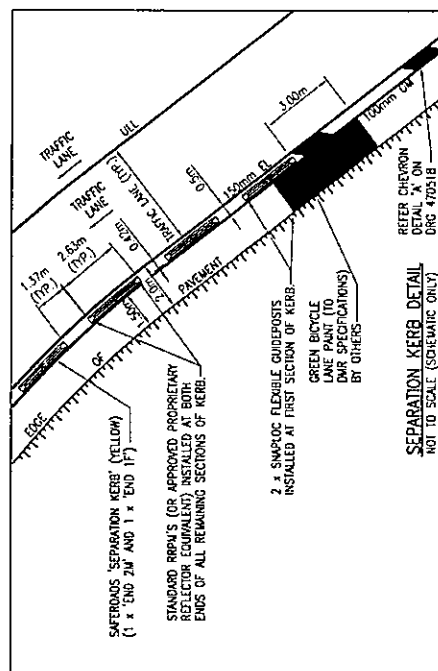
POINT	DIVANCE	EASTING	NORTHING	BEARING	RADIUS	INCLIN	DEF. ANGLE	WELL
1	100.500	564937.05	8132444.11	34846.77°	190.500	6.617	5407° 05'	13.225
2	170.000	564937.05	8132444.11	34846.77°	170.000	6.617	5407° 05'	13.225
3	170.000	564937.05	8132444.11	34846.77°	170.000	6.617	5407° 05'	13.225
4	170.000	564937.05	8132444.11	34846.77°	170.000	6.617	5407° 05'	13.225
5	170.000	564937.05	8132444.11	34846.77°	170.000	6.617	5407° 05'	13.225
6	170.000	564937.05	8132444.11	34846.77°	170.000	6.617	5407° 05'	13.225
7	170.000	564937.05	8132444.11	34846.77°	170.000	6.617	5407° 05'	13.225
8	170.000	564937.05	8132444.11	34846.77°	170.000	6.617	5407° 05'	13.225
9	170.000	564937.05	8132444.11	34846.77°	170.000	6.617	5407° 05'	13.225
10	170.000	564937.05	8132444.11	34846.77°	170.000	6.617	5407° 05'	13.225
11	170.000	564937.05	8132444.11	34846.77°	170.000	6.617	5407° 05'	13.225
12	170.000	564937.05	8132444.11	34846.77°	170.000	6.617	5407° 05'	13.225
13	170.000	564937.05	8132444.11	34846.77°	170.000	6.617	5407° 05'	13.225
14	170.000	564937.05	8132444.11	34846.77°	170.000	6.617	5407° 05'	13.225
15	170.000	564937.05	8132444.11	34846.77°	170.000	6.617	5407° 05'	13.225
16	170.000	564937.05	8132444.11	34846.77°	170.000	6.617	5407° 05'	13.225
17	170.000	564937.05	8132444.11	34846.77°	170.000	6.617	5407° 05'	13.225
18	170.000	564937.05	8132444.11	34846.77°	170.000	6.617	5407° 05'	13.225
19	170.000	564937.05	8132444.11	34846.77°	170.000	6.617	5407° 05'	13.225
20	170.000	564937.05	8132444.11	34846.77°	170.000	6.617	5407° 05'	13.225
21	170.000	564937.05	8132444.11	34846.77°	170.000	6.617	5407° 05'	13.225
22	170.000	564937.05	8132444.11	34846.77°	170.000	6.617	5407° 05'	13.225
23	170.000	564937.05	8132444.11	34846.77°	170.000	6.617	5407° 05'	13.225
24	170.000	564937.05	8132444.11	34846.77°	170.000	6.617	5407° 05'	13.225
25	170.000	564937.05	8132444.11	34846.77°	170.000	6.617	5407° 05'	13.225
26	170.000	564937.05	8132444.11	34846.77°	170.000	6.617	5407° 05'	13.225
27	170.000	564937.05	8132444.11	34846.77°	170.000	6.617	5407° 05'	13.225
28	170.000	564937.05	8132444.11	34846.77°	170.000	6.617	5407° 05'	13.225
29	170.000	564937.05	8132444.11	34846.77°	170.000	6.617	5407° 05'	13.225
30	170.000	564937.05	8132444.11	34846.77°	170.000	6.617	5407° 05'	13.225
31	170.000	564937.05	8132444.11	34846.77°	170.000	6.617	5407° 05'	13.225
32	170.000	564937.05	8132444.11	34846.77°	170.000	6.617	5407° 05'	13.225
33	170.000	564937.05	8132444.11	34846.77°	170.000	6.617	5407° 05'	13.225
34	170.000	564937.05	8132444.11	34846.77°	170.000	6.617	5407° 05'	13.225
35	170.000	564937.05	8132444.11	34846.77°	170.000	6.617	5407° 05'	13.225
36	170.000	564937.05	8132444.11	34846.77°	170.000	6.617	5407° 05'	13.225

CONTROL: 1 INF MC01 SETOUT TABLE

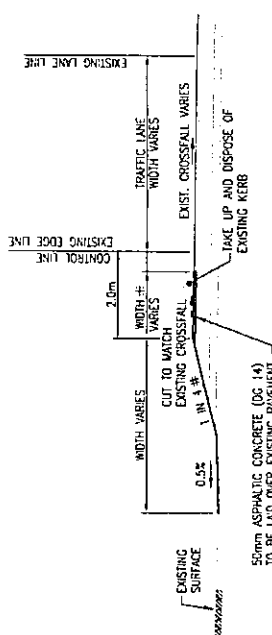
POINT	CHANGE	EASTING	NORTHING	GEORING	ROADS	TWENTY	DEF. ANGLE	ARC. LEN.
IP1	100.000	364407.985	813530.991	1321515.10				
IP2	100.000	364407.985	813530.991	1321515.10	150.700	8.102	7216° 37'	19.778
IP3	119.181	364421.355	8135817.231	1326345.07				
IP4	119.181	364421.355	8135817.231	1326345.07	106.100	7.395	7255° 18'	14.768
IP5	126.554	364476.701	8136811.554					
IP6	133.547	364476.701	8136811.554	1711639.04	60.393	26.631	471444° 46'	50.737
IP7	159.076	364431.425	8135758.846	1321325.23				
IP8	164.268	364476.701	8135758.846	1321325.23				
IP9	181.228	364476.701	8135758.846	1321325.23				
IP10	198.821	364483.033	8135758.846	1321325.23	69.600	15.862	253400° 40'	31.192
IC1	215.397	364507.448	8135801.447	1363037.45				
IC2	215.397	364507.448	8135801.447	1363037.45				
IC3	226.350	364516.726	8135801.917		96.500	11.501	13400° 07'	21.927
IC4	237.323	364524.969	8135814.915					
IC5	237.323	364524.969	8135814.915	445029.41				
IC6	247.127	364524.969	8135814.915	445029.41				
IC7	257.127	364524.969	8135814.915	445029.41	88.199	9.976	121255° 21'	18.857

CONTROL LINE MC01 SETOUT TABLE

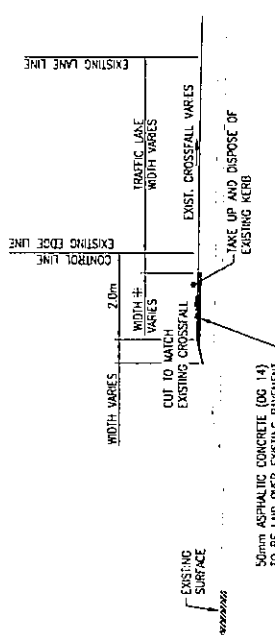
	PHOT	DIMANCE	EASTING	NORTHING	BEARING	RADIUS	INCLINED	REF. ANGLE	ARC LENGTH
IP1	100	344552.310	9135678.098	100	140	65.500	13.168	22e44' 45"	28.598
IP2	111.298	344547.931	9135678.098	100	150	65.500	13.168	22e44' 45"	28.598
IP3	126.596	344537.992	9135680.819	100	160	65.500	13.168	22e44' 45"	28.598
IC	133.863	344532.956	9135690.644	100	170	65.500	13.168	22e44' 45"	28.598
IC	141.130	344527.920	9135700.469	100	180	65.500	13.168	22e44' 45"	28.598
IC	148.397	344522.884	9135710.294	100	190	65.500	13.168	22e44' 45"	28.598
IC	155.664	344517.848	9135720.119	100	200	65.500	13.168	22e44' 45"	28.598
IC	162.931	344512.812	9135730.944	100	210	65.500	13.168	22e44' 45"	28.598
IC	170.198	344507.776	9135740.769	100	220	65.500	13.168	22e44' 45"	28.598
IP1	177.465	344502.740	9135750.594	100	230	65.500	13.168	22e44' 45"	28.598
IP2	184.732	344497.704	9135760.419	100	240	65.500	13.168	22e44' 45"	28.598
IP3	191.999	344492.668	9135770.244	100	250	65.500	13.168	22e44' 45"	28.598
IP4	200.266	344487.632	9135780.069	100	260	65.500	13.168	22e44' 45"	28.598
IP5	208.533	344482.596	9135790.894	100	270	65.500	13.168	22e44' 45"	28.598
IC	215.800	344477.560	9135808.719	100	280	65.500	13.168	22e44' 45"	28.598
IC	223.067	344472.524	9135818.544	100	290	65.500	13.168	22e44' 45"	28.598
IC	230.334	344467.488	9135828.369	100	300	65.500	13.168	22e44' 45"	28.598
IP1	237.601	344462.452	9135838.194	100	310	65.500	13.168	22e44' 45"	28.598
IP2	244.868	344457.416	9135848.019	100	320	65.500	13.168	22e44' 45"	28.598
IP3	252.135	344452.380	9135857.844	100	330	65.500	13.168	22e44' 45"	28.598
IP4	259.402	344447.344	9135867.669	100	340	65.500	13.168	22e44' 45"	28.598
IP5	266.669	344442.308	9135877.494	100	350	65.500	13.168	22e44' 45"	28.598
IC	273.936	344437.272	9135887.319	100	360	65.500	13.168	22e44' 45"	28.598
IC	281.203	344432.236	9135897.144	100	370	65.500	13.168	22e44' 45"	28.598
IC	288.470	344427.200	9135906.969	100	380	65.500	13.168	22e44' 45"	28.598
IC	295.737	344422.164	9135916.794	100	390	65.500	13.168	22e44' 45"	28.598
IC	303.004	344417.128	9135926.619	100	400	65.500	13.168	22e44' 45"	28.598
IC	310.271	344412.092	9135936.444	100	410	65.500	13.168	22e44' 45"	28.598
IC	317.538	344407.056	9135946.269	100	420	65.500	13.168	22e44' 45"	28.598
IC	324.805	344402.020	9135956.094	100	430	65.500	13.168	22e44' 45"	28.598
IC	332.072	344396.984	9135965.919	100	440	65.500	13.168	22e44' 45"	28.598
IC	339.339	344391.948	9135975.744	100	450	65.500	13.168	22e44' 45"	28.598
IC	346.606	344386.912	9135985.569	100	460	65.500	13.168	22e44' 45"	28.598
IC	353.873	344381.876	9135995.394	100	470	65.500	13.168	22e44' 45"	28.598



CONTROL LINE MC02 (LHS CH 160 000 - CH 180 000)



CONTROL LINE MC03 (HS CH 110 000 - CH 279 350)

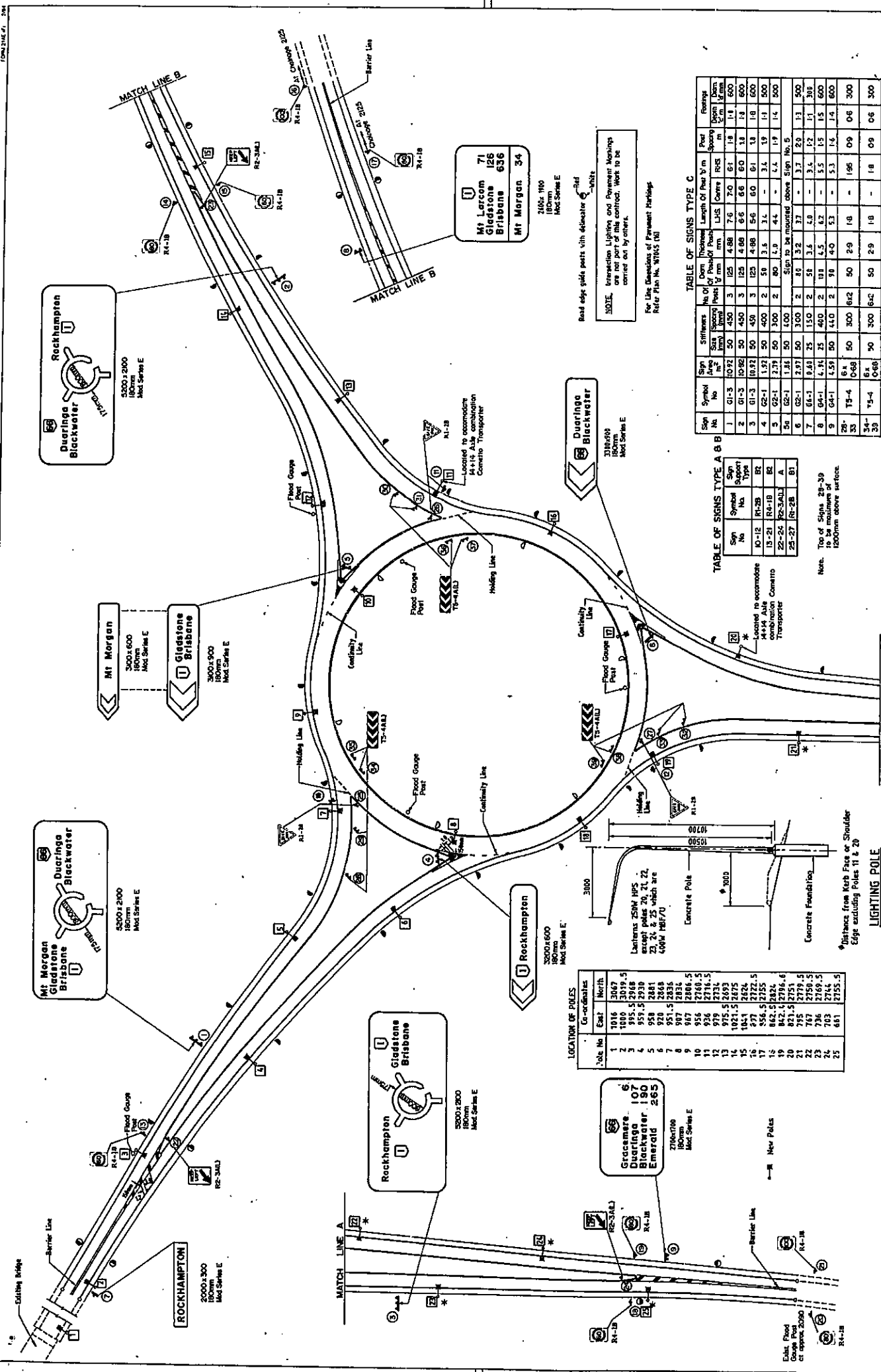


CONTROL LINE MC01 (MS CH 101275 - CH 147133)

**TYPICAL ROAD CROSS SECTIONS
AND SETOUT DETAILS**

CAIRNS REGION			
CAPTAIN COOK HIGHWAY (CAIRNS - MOSSMAN)			
UNTIL CHGE HOLLOWAYS BEACH ROUNDABOUT			
Reference Points			
Preceding SP	Dist to start of job (km)	From start to end of job	Following SP
20/04	1372	02	2803
		from Cairns to Mossman Road, Cairns	24/05

[illegible][illegible]

[illegible]

Syn No	Symbol No.	Syn Support Type
10-12	R1-25	B2
13-21	R4-18	B2
22-24	R2-3A12	A
25-27	R2-18	B1

Diagram illustrating the connection of a lighting pole to a concrete foundation. The pole is labeled "LIGHTING POLE" and the foundation is labeled "Concrete Foundation". The distance from the curb face to the shoulder edge, excluding the pole, is indicated as 20'.

9	967	2806.5
10	956	2760.5
11	936	2716.5
12	929	2722.5
13	975.5	2693
14	1021.5	2675
15	1051	2652
16	977	2722.5
17	958.5	2725
18	862.5	2824
19	842.5	2796.6
20	821.5	2779.5
21	795	2779.5
22	767	2790.5
23	736	2769.5
24	703	2744
25	661	2755.5

NEW POLAR

A diagram showing a road layout with a 'Barrier Line' and a 'K-4-18' marker. The diagram includes a dashed line labeled 'Barrier Line' and a solid line labeled 'K-4-18'. There are also several small circles and a larger circle with a cross inside.

Exhibit Flood Gauge Post at approx. 20

R4-18

[illegible]









CONFLICT WITH SERVICES
No Works shall be undertaken within 3.0m of any service without first consulting with the relevant service authority.

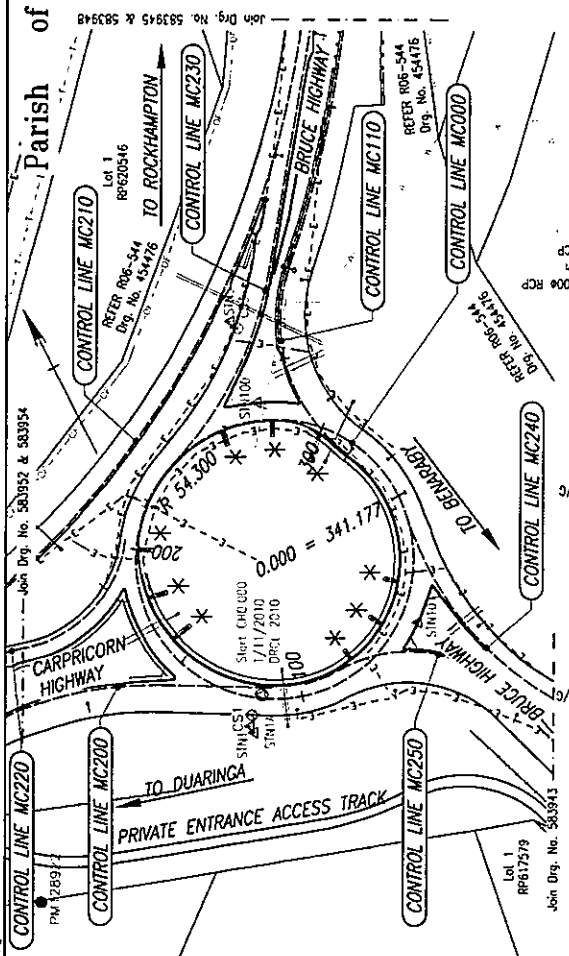
Cover to culverts to be checked prior to pavement works.

NOTES:

- For Drainage Cross Section Details, Refer Drg. No.'s 581965 to 581966.
For Central Line Section Refer Drg. No.'s 581938 to 581942.
For Kerb Details Refer Drg. No.'s 581973 to 581979.
For Slot in Kerb Detail Refer Drg. No. 581931.
For Typical Cross Sections Refer Drg. No.'s 581921 to 581926.

LEGEND:

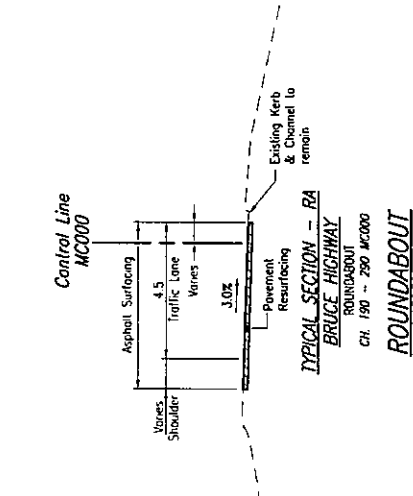
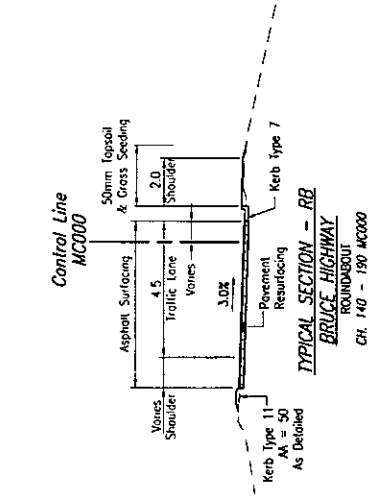
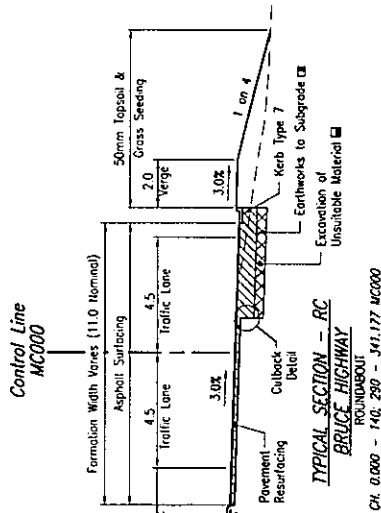
-  Cadastral Boundary.
 Existing Drainage Culvert
 Existing Fence
 Existing Signs
 Vegetation
 Survey Station
 Road Edge Guide Posts.
 Slot in Kerb locations

[illegible]

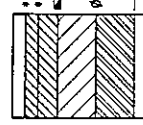
Control Line MC000

[illegible]


DESIGN TRAFFIC = 3.4×10^7 ESA'S
DESIGN LIFE = 20 YEARS
DESIGN SUBGRADE CBR = 1 & 3



TYPICAL SECTION - UA
UPPER DAWSON ROAD

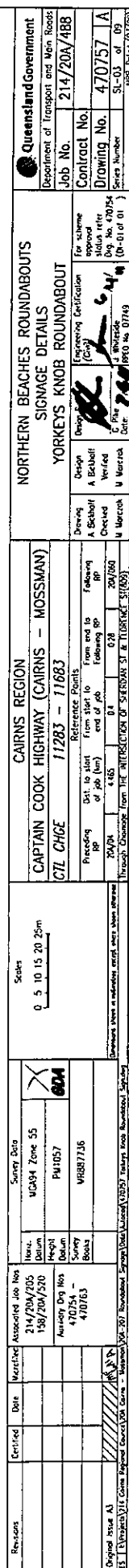


BITUMEN SURFACING

- Denotes Earthworks includes Subgrade Treatment Type E
- Excavation of Unsuitable Material & backfill with Rockfill
- Items 3216.01P & 3503.01P (If Ordered) 
- For Standard Notes Refer Drg. No. 583921.
- For Cutback Detail Refer Drg. No. 583921.

[illegible]

0007





For details of kerb slopes and median noses Refer Plan No. 247276 (No 29)

Offsets & levels shown on this Plan are FINAL construction details. Where required, PRE-SURCHARGE offsets & levels are given on relevant Cross Section Plans.

CONSTRUCTION DETAIL

MULGRAVE	SHIRE
CAPTAIN COOK HIGHWAY (CAIRNS - MOSSMAN)	
YORKEY'S KNOB ROUNDABOUT	

Survey books
20A - 407 to 411
Through change from

pt where shown	
t.	
	Full

Dimensions in metres
otherwise,
Culvert sizes in millimetres
Scale (m)

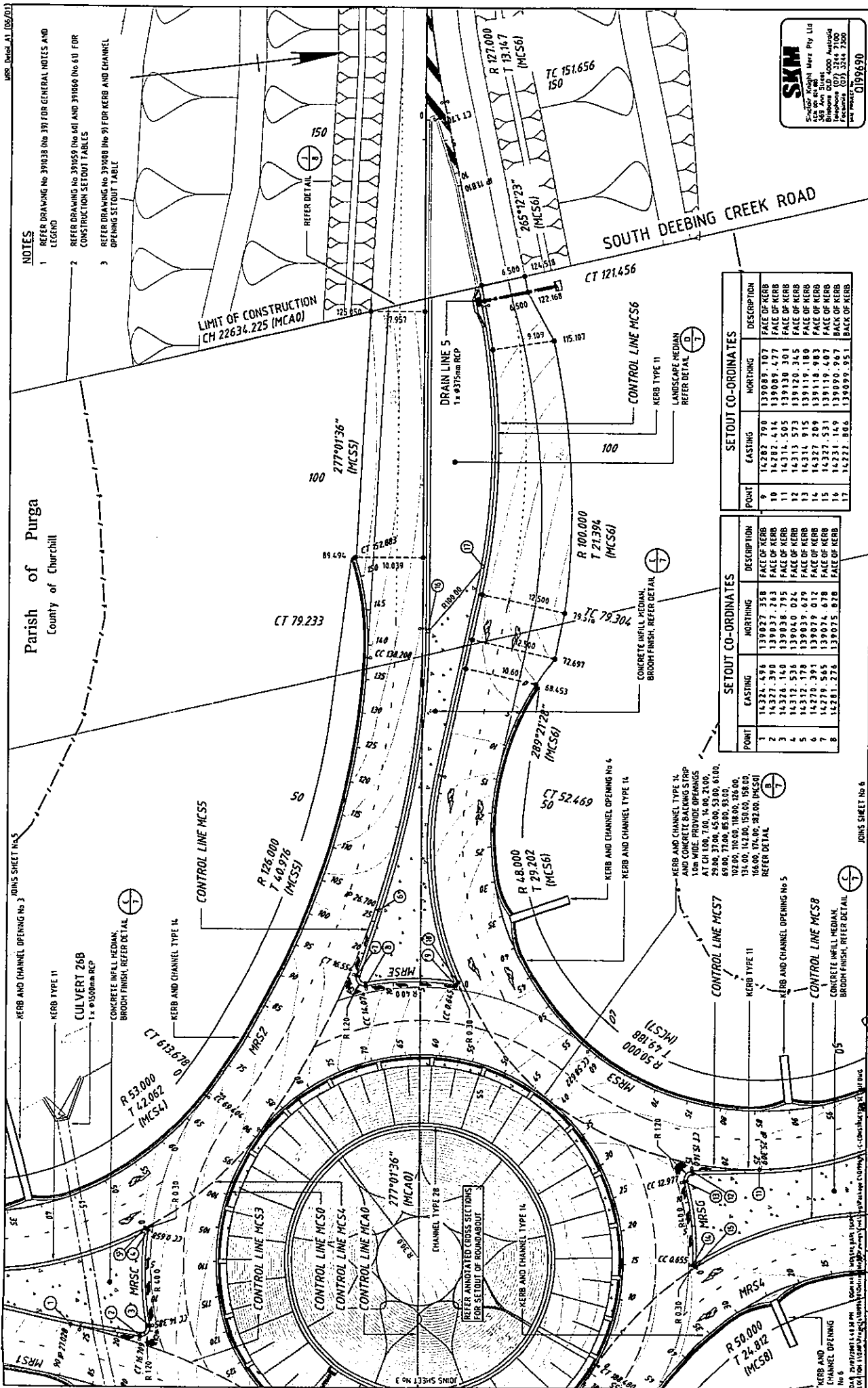
Revisions	Date	Microfilmed	Associated job no.
			26-20A-31
			Auxiliary plan no.
			217216 - 263321

Additional Acc. Plan	247236 - 247321		Full size	A1.
Res.	247315 - 248119			
Changed Acc. Plan	248246-C			
Res.	248337 - 248438			
Res.	248439 - 248519			
Original Issue	248520 - 248619			
Additional Acc. Plan	248620 - 248719			
Res.	248720 - 248819			
Changed Acc. Plan	248820-C			
Res.	248821 - 248919			
Original Issue	248920 - 249019			
Additional Acc. Plan	249020 - 249119			
Res.	249120 - 249219			
Changed Acc. Plan	249220-C			
Res.	249221 - 249319			
Original Issue	249320 - 249419			
Additional Acc. Plan	249420 - 249519			
Res.	249520 - 249619			
Changed Acc. Plan	249620-C			
Res.	249621 - 249719			
Original Issue	249720 - 249819			
Additional Acc. Plan	249820 - 249919			
Res.	249920 - 250019			
Changed Acc. Plan	250020-C			
Res.	250021 - 250119			
Original Issue	250120 - 250219			
Additional Acc. Plan	250220 - 250319			
Res.	250320 - 250419			
Changed Acc. Plan	250420-C			
Res.	250421 - 250519			
Original Issue	250520 - 250619			
Additional Acc. Plan	250620 - 250719			
Res.	250720 - 250819			
Changed Acc. Plan	250820-C			
Res.	250821 - 250919			
Original Issue	250920 - 251019			
Additional Acc. Plan	251020 - 251119			
Res.	251120 - 251219			
Changed Acc. Plan	251220-C			
Res.	251221 - 251319			
Original Issue	251320 - 251419			
Additional Acc. Plan	251420 - 251519			
Res.	251520 - 251619			
Changed Acc. Plan	251620-C			
Res.	251621 - 251719			
Original Issue	251720 - 251819			
Additional Acc. Plan	251820 - 251919			
Res.	251920 - 252019			
Changed Acc. Plan	252020-C			
Res.	252021 - 252119			
Original Issue	252120 - 252219			
Additional Acc. Plan	252220 - 252319			
Res.	252320 - 252419			
Changed Acc. Plan	252420-C			
Res.	252421 - 252519			
Original Issue	252520 - 252619			
Additional Acc. Plan	252620 - 252719			
Res.	252720 - 252819			
Changed Acc. Plan	252820-C			
Res.	252821 - 252919			
Original Issue	252920 - 253019			
Additional Acc. Plan	253020 - 253119			
Res.	253120 - 253219			
Changed Acc. Plan	253220-C			
Res.	253221 - 253319			
Original Issue	253320 - 253419			
Additional Acc. Plan	253420 - 253519			
Res.	253520 - 253619			
Changed Acc. Plan	253620-C			
Res.	253621 - 253719			
Original Issue	253720 - 253819			
Additional Acc. Plan	253820 - 253919			
Res.	253920 - 254019			
Changed Acc. Plan	254020-C			
Res.	254021 - 254119			
Original Issue	254120 - 254219			
Additional Acc. Plan	254220 - 254319			
Res.	254320 - 254419			
Changed Acc. Plan	254420-C			
Res.	254421 - 254519			
Original Issue	254520 - 254619			
Additional Acc. Plan	254620 - 254719			
Res.	254720 - 254819			
Changed Acc. Plan	254820-C			

NOTES

- 1 REFER DRAWING No 391038 (No 39) FOR GENERAL NOTES AND LEGEND
- 2 REFER DRAWING No 391059 (No 61) AND 391060 (No 61) FOR CONSTRUCTION SETOUT TABLES
- 3 REFER DRAWING No 391060 (No 9) FOR KERB AND CHANNEL OPENING SETOUT TABLE

Parish of Purga
County of Churchill



SKM
Skecon Knight Merz Pty Ltd
348 Ann Street
Brisbane QLD 4000 Australia
Phone: (07) 3244 3200
Fax: (07) 3244 3200
www.skm.com.au

SETOUT CO-ORDINATES

POINT	EASTING	NORTHING	DESCRIPTION
1	14224.496	139027.358	FACE OF KERB
2	14227.370	139037.243	FACE OF KERB
3	14228.140	139038.795	FACE OF KERB
4	14232.536	139040.026	FACE OF KERB
5	14231.536	139039.679	FACE OF KERB
6	14227.391	139039.679	FACE OF KERB
7	14227.565	139037.478	FACE OF KERB
8	14228.127	139037.478	FACE OF KERB
9	14282.790	139089.107	FACE OF KERB
10	14282.414	139089.477	FACE OF KERB
11	142314.505	139130.301	FACE OF KERB
12	142313.573	139120.345	FACE OF KERB
13	142314.915	139119.180	FACE OF KERB
14	14227.209	139118.983	FACE OF KERB
15	14227.531	139119.407	FACE OF KERB
16	14227.531	139119.407	FACE OF KERB
17	14222.866	139097.351	FACE OF KERB

SETOUT CO-ORDINATES

POINT	EASTING	NORTHING	DESCRIPTION
1	14224.496	139027.358	FACE OF KERB
2	14227.370	139037.243	FACE OF KERB
3	14228.140	139038.795	FACE OF KERB
4	14232.536	139040.026	FACE OF KERB
5	14231.536	139039.679	FACE OF KERB
6	14227.391	139039.679	FACE OF KERB
7	14227.565	139037.478	FACE OF KERB
8	14228.127	139037.478	FACE OF KERB
9	14282.790	139089.107	FACE OF KERB
10	14282.414	139089.477	FACE OF KERB
11	142314.505	139130.301	FACE OF KERB
12	142313.573	139120.345	FACE OF KERB
13	142314.915	139119.180	FACE OF KERB
14	14227.209	139118.983	FACE OF KERB
15	14227.531	139119.407	FACE OF KERB
16	14227.531	139119.407	FACE OF KERB
17	14222.866	139097.351	FACE OF KERB

Queensland Government
Department of Main Roads

JOBS No. 148/910/3C
Drawing No. 391056
Contract No. 148/910/3C

Approved See Dig No 391001 for DO(Metric) Approval / /

Design Exampled
Drawn MAM
Checked Cld
Reviewed RPD 7057

IPSWICH CITY
CENTENARY HIGHWAY EXTENSION
CTL CHGE PACKAGE C (MILEY ROAD TO SOUTH DEEBING CREEK ROAD)

Survey BGR
Control Cld
Check Cld

From and to Mile 1.0 to Mile 1.5
From and to Mile 1.0 to Mile 1.5

Through change from MRS2586
Through change from MRS2586

Dimensions in metres except where otherwise. Survey books
Cutvert sizes in millimetres.

Scale 1250 (A1)
1500 (A3)

Associated job nos

Revisions

Original issue

JOBS SHEET No 6

JOBS SHEET No 3

JOBS SHEET No 4

JOBS SHEET No 5

JOBS SHEET No 7

JOBS SHEET No 8

JOBS SHEET No 9

JOBS SHEET No 10

JOBS SHEET No 11

JOBS SHEET No 12

JOBS SHEET No 13

JOBS SHEET No 14

JOBS SHEET No 15

JOBS SHEET No 16

JOBS SHEET No 17

JOBS SHEET No 18

JOBS SHEET No 19

JOBS SHEET No 20

JOBS SHEET No 21

JOBS SHEET No 22

JOBS SHEET No 23

JOBS SHEET No 24

JOBS SHEET No 25

JOBS SHEET No 26

JOBS SHEET No 27

JOBS SHEET No 28

JOBS SHEET No 29

JOBS SHEET No 30

JOBS SHEET No 31

JOBS SHEET No 32

JOBS SHEET No 33

JOBS SHEET No 34

JOBS SHEET No 35

JOBS SHEET No 36

JOBS SHEET No 37

JOBS SHEET No 38

JOBS SHEET No 39

JOBS SHEET No 40

JOBS SHEET No 41

JOBS SHEET No 42

JOBS SHEET No 43

JOBS SHEET No 44

JOBS SHEET No 45

JOBS SHEET No 46

JOBS SHEET No 47

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JOBS SHEET No 85

JOBS SHEET No 86

JOBS SHEET No 87

JOBS SHEET No 88

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JOBS SHEET No 91

JOBS SHEET No 92

JOBS SHEET No 93

JOBS SHEET No 94

JOBS SHEET No 95

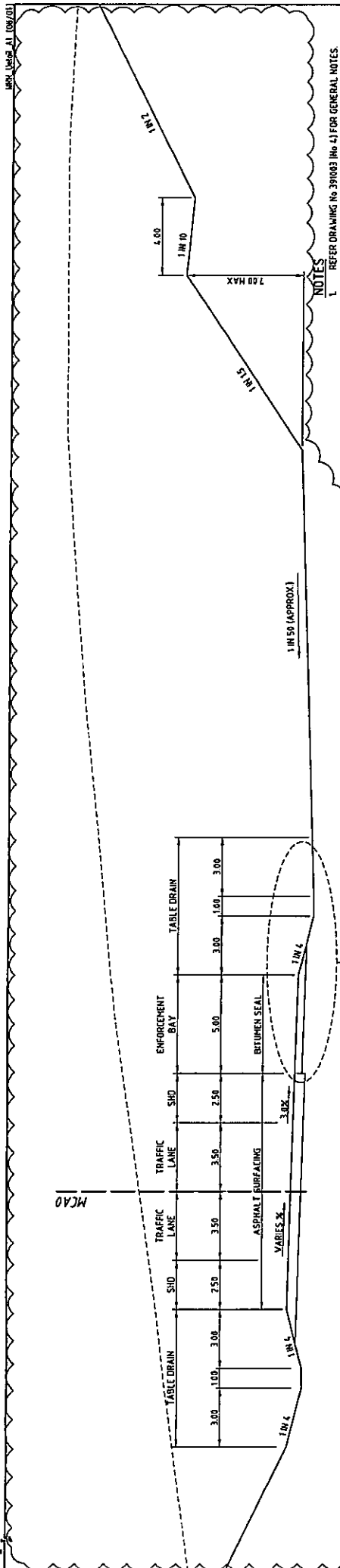
JOBS SHEET No 96

JOBS SHEET No 97

JOBS SHEET No 98

JOBS SHEET No 99

JOBS SHEET No 100



REFER DRAWING No 391003 (No 4) FOR GENERAL NOTES.

LEGEND

SUBSOIL DRAIN TYPE D, REFER DEPARTMENT OF MAIN ROADS
STANDARD DRAWING No 1116.

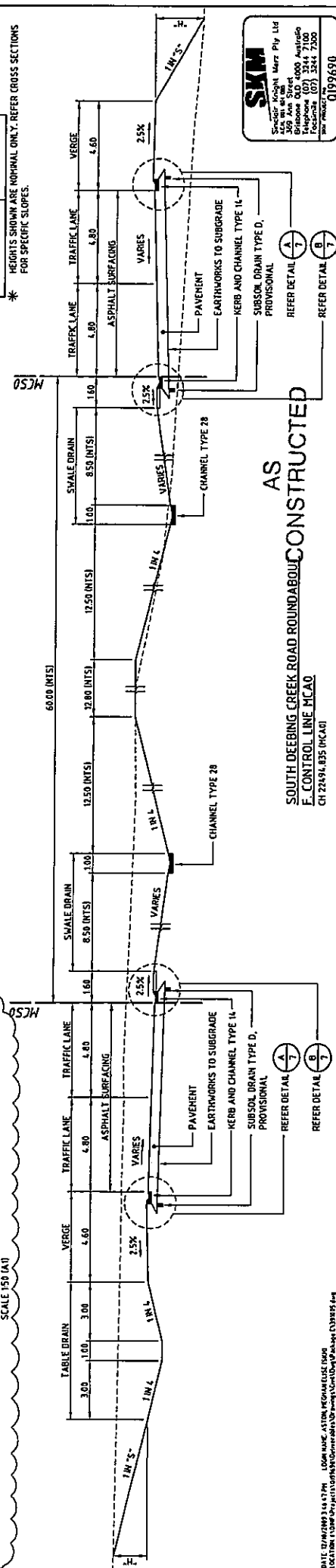
CENTENARY HIGHWAY EXTENSION
G. CONTROL LINE MCA0
CH 1904 2.000 TO CH 19375.000 (MCA0)

CUT BATTER SLOPE *		SLOPE (S)
HEIGHT (H)		
H < 2.0m	1N 4	
H > 2.0m - < 7.0m	1N 2	
H > 7.0m @	1N 1.5	

BENCHES (6.0m WIDE) TO BE CONSTRUCTED AT MAXIMUM 7.0m HEIGHT EXCEPT IN LOCATIONS SHOWN, REFER CROSS SECTIONS FOR ALTERNATIVE SECTIONS.

FILL BATTER SLOPE *	
HEIGHT (H)	SLOPE (S)
H ≤ 4.0m	1 IN 4
H > 4.0m	1 IN 2

← HEIGHTS SHOWN ARE NOMINAL ONLY. REFER CROSS SECTIONS FOR SPECIFIC SLOPES.



SKM
Sincclair Knight Merz P
a/c/a tel 451 000
369 Ann Street
Brisbane QLD 4000 Australia
Telephone (07) 3244 7
Facsimile (07) 3244 7
your product no 0199690

Queensland Government Department of Main Roads	
JOB No. 148/910/3C	No. 6 of 237drgs Drawing No. 391005
Contract No. 148/910/3C	A B

TYPE SECTIONS
SHEET 3 OF 3

<p>certified</p> <p>OLIVE</p> <p>EQ 7855</p>	
--	--

Drawn	Design	Examined	Calculated
NAT	KAW	T. GLOVER	M. REED
Ckd	Ckd		
PKR	PKR		

[illegible]

EXTENSION	Following RPC
-----------	------------------

	Place Points	From enroute start to of job	From enroute following
SWITCH CITY			
HIGHWAY			
LEY ROAD TO SOO			

Reference	From end	to start job (km)
CENTENARY		
PACKAGE C (RIP)		

Preceding RPC	Date of
------------------	---------

books	change from
4982056	
4982686	

thenwise, Survey b	Through

3m

6m

nos	Dimension Culvert size	Scores	
		1:50 (A)	1:100 (A)
nos		1:100 (A)	1:200 (A)

Associated job	Auxiliary drawing	(Office use only)
----------------	-------------------	-------------------

[illegible]

1983				CONSTRUCTED	9940
				11 issue	

	Revised	
B	AS CONS	
A	Original	

AS
CONSTRUCTED

148/910/3C	Contract No.	Drawing No.			
148/910/3C		391063			
		A	B		

Revisions	Certified	Date	Microfilm	Auxiliary drawing nos	Associated job nos
AS CONSTRUCTED	1/40	1/0	1/13		
Original issue					(Office use only)

SYMBOL	DESCRIPTION
	EXISTING SIGN
	PROPOSED SIGN
	RELOCATED SIGN
	EXISTING SIGN TO BE REMOVED
	NOK REFLECTIVE RPH
	BORIRECTIONAL RPH (WHITE)
	UNIDIRECTIONAL RPH (WHITE)
	UNIDIRECTIONAL RPH (RED)
	ROAD EDGE GUIDE POSTS
	DELINATOR

1. ALL LINEMARKING TO BE REFLECTORIZED WHITE.
2. ALL SIGNS TO BE SIZE B UNLESS NOTED OTHERWISE.
3. SIGNS AND LINEMARKING TO BE IN ACCORDANCE WITH MAIN ROADS "MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES". MATERIAL OF ALL LINEMARKING TO BE PAINT.
4. PAVEMENT ARROWS AND CURB/ROW MARKING TO BE INSTALLED IN ACCORDANCE WITH "MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES".
5. SIGN SUPPORT TO BE IN ACCORDANCE WITH DEPARTMENT OF MAIN ROADS STANDARD DRAWING Nos. 1363 AND 1368.
6. GROUND SPACING TO BE 25.4m UNLESS NOTED OTHERWISE.
7. GUIDE POSTS TO BE INSTALLED IN ACCORDANCE WITH DEPARTMENT OF MAIN ROADS STANDARD DRAWING No. 1358.
8. REFER TO DRAWING No. 391078 (No. 79) TO 391079 (No. 80) FOR SIGN SCHEDULES.
9. SIGNS LOCATED IN CONCRETE MEDIANS TO BE INSTALLED USING LOC SOCKET OR OTHER METHOD APPROVED BY THE SUPERINTENDENT.

12/16/2009 4:13:15 PM LOGAN MAINE, ASTON, MEGHAN ELISE (5009)

	Revisions	Certified	Date Microfilmed	Associated job nos.	Drawing no.
S				Auxiliary drawing nos.	(Office use only)
C					

NOTES

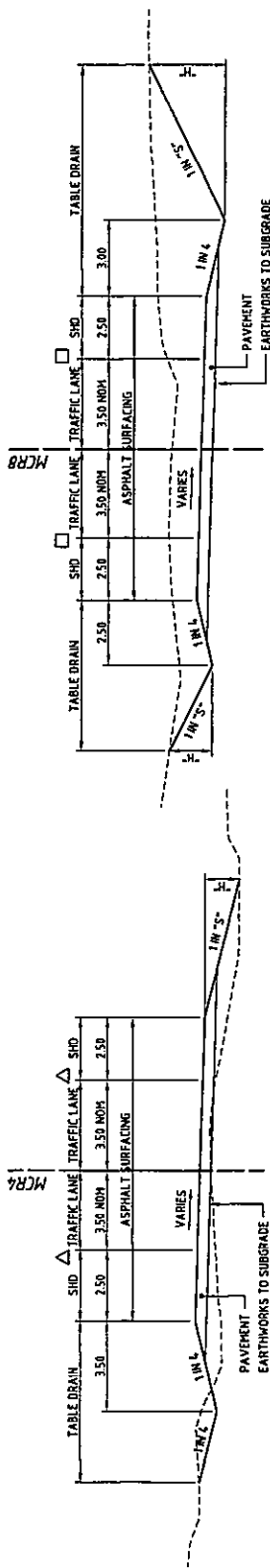
1. REFER DRAWING NO 370843 (NO 5) FOR GENERAL NOTES.
2. REFER CONSTRUCTION PLANS DRAWING NO 384438 (NO 520) TO NO 384461 (NO 523) FOR EXTENTS OF KERB, CHANNEL, MEDIAN, DRAINAGE, GUARDRAIL AND TABLE DRAINS.

LEGEND

- SUBSOIL DRAIN TYPE D, REFER DEPARTMENT OF MAIN ROADS STANDARD DRAWING NO 116.
- TRAFFIC LANES TAPER FROM 3.0m TO 3.5m AND SHOULDERS TAPER FROM 2.0m TO 2.5m FROM MCR4 CH 560,000 TO 602,394.
- TRAFFIC LANES TAPER FROM 3.5m TO 2.5m AND SHOULDERS TAPER FROM 2.5m TO 1.5m FROM MCR8 CH 218,618 TO CH 267,712.

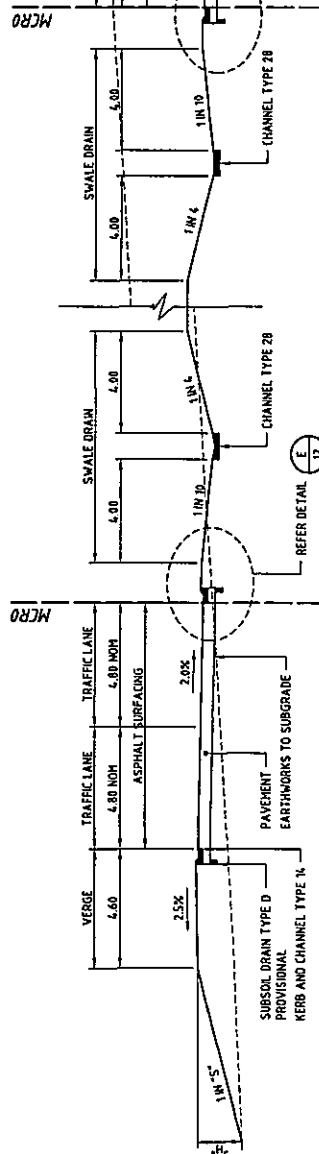
CUT BATTER SLOPE	
HEIGHT (H)	SLOPE (S)
H = 2.0m	1 IN 3
H = 2.0m - 17.0m	1 IN 2
H = 7.0m	1 IN 1.5

FILL BATTER SLOPE	
HEIGHT (H)	SLOPE (S)
H < 1.0m	1 IN 4
H = 1.0m - 3.0m	1 IN 3
H = 3.0m	1 IN 2



RIPLEY ROAD
R4 CONTROL LINE MCR4
CH 560,000 - CH 670,926

RIPLEY ROAD
R5 CONTROL LINE MCR8
CH 154,168 - CH 267,712



RIPLEY ROAD ROUNDABOUT
R3 CONTROL LINE MCR0

SKM
Shedden Knight Murr Pty Ltd
15/51 Stirling Highway
Brisbane QLD 4000 Australia
Telephone (07) 3244 7100
Facsimile (07) 3244 7500
Per Project: Q199690

Queensland Government
Department of Main Roads
JOB No. 148/910/38
Drawing No. 384445
Contract No. 148/910/38
DSD REF: 099690-10-TYPE SECTION 2

TYPE SECTIONS SHEET 2 OF 2		IPSWICH CITY SOUTH WEST ARTERIAL ROAD CITL CHGE PACKAGE B (BANDAMBA CK TO RIPLEY ROAD)		Survey books M82053 TO M82056 M82658 TO M82688		Through change from		Dimensions in metres except where shown otherwise Culvert sizes in millimetres.		Associated job nos		Certified Date		Revisions	
Survey	Design	Examined	Certified	Approved	1/1	Preceding	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1
Scale	Scale	Scale	Scale	Scale	Scale	Scale	Scale	Scale	Scale	Scale	Scale	Scale	Scale	Scale	Scale
1:100 (A1)	1:100 (A1)	1:100 (A1)	1:100 (A1)	1:100 (A1)	1:100 (A1)	1:100 (A1)	1:100 (A1)	1:100 (A1)	1:100 (A1)	1:100 (A1)	1:100 (A1)	1:100 (A1)	1:100 (A1)	1:100 (A1)	1:100 (A1)
1:200 (A3)	1:200 (A3)	1:200 (A3)	1:200 (A3)	1:200 (A3)	1:200 (A3)	1:200 (A3)	1:200 (A3)	1:200 (A3)	1:200 (A3)	1:200 (A3)	1:200 (A3)	1:200 (A3)	1:200 (A3)	1:200 (A3)	1:200 (A3)
Original Issue															